

\*Paul, Schwartz please. Please return all attachments with search results. Thanks.

# SEARCH REQUEST FORM

Scientific and Technical Information Center

Access DB#

RECEIVED

127912

# 23 200

Requester's Full Name: MOLLY CEPERLEY Examiner #: 59757 Date: 07/23/04  
Art Unit: 1641 Phone Number 302-0813 Serial Number: 10/087, 612  
(Mail Box and Bldg/Room Location: Room 3A51 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*  
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

① Please search for the antibody (broad) of claim 16. See drugs of page 1.

② Please search for the structure of claim 1 and each of the following

Terms:

antibody, antigen, immunogen, <sup>115</sup>hapten, immunoassay, label, tracer, each of the compounds of claim 3, ovalbumin, polysaccharide, polylysine

Amphetamine and Methamphetamine derivatives.

## STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: _____	NA Sequence (#) _____	STN <u>575-06</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>1</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>7/18</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>30</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet <u>1</u>
Online Time: <u>67</u>	Other _____	Other (specify) _____



Ceperley 10/087,612

*Considered.*  
09/14/04  
07/27/2004

=> d que

L7 2 SEA FILE=REGISTRY ABB=ON PLU=ON MDEA/CN  
L14 1 SEA FILE=REGISTRY ABB=ON PLU=ON 3,4-METHYLENEDIOXYAMPHETAMINE  
/CN  
L15 1 SEA FILE=REGISTRY ABB=ON PLU=ON ECSTASY/CN  
L16 3 SEA FILE=REGISTRY ABB=ON PLU=ON BDB/CN  
L17 1 SEA FILE=REGISTRY ABB=ON PLU=ON L16 AND "3,4"  
L18 1 SEA FILE=REGISTRY ABB=ON PLU=ON MBDB/CN  
L19 2 SEA FILE=REGISTRY ABB=ON PLU=ON MDPA/CN  
L22 1 SEA FILE=REGISTRY ABB=ON PLU=ON L19 AND OCOC2/ESS  
L23 7 SEA FILE=REGISTRY ABB=ON PLU=ON L14 OR L15 OR L7 OR L18 OR  
L17 OR L22  
L24 10 SEA FILE=HCAPLUS ABB=ON PLU=ON L23 (L) ?ANTIBOD?  
L26 141 SEA FILE=HCAPLUS ABB=ON PLU=ON ?ANTIBOD? (5A) (MDA OR MDMA OR  
ECSTASY OR EVE OR MDEA OR BDB OR MBDB OR MDPA)  
L27 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L26 AND L23  
L28 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L24 OR L27

=> d l28 ibib ab hitind hitstr 1-11

L28 ANSWER ① OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2004:331676 HCAPLUS  
DOCUMENT NUMBER: 140:334030  
TITLE: Derivatives, conjugates, and **antibodies** for  
detecting **ecstasy**-class analytes  
INVENTOR(S): Hui, Raymond A.; Vitone, Stephen; Root, Richard Terry;  
Baburina, Irina; Jordan, Sheri  
PATENT ASSIGNEE(S): Roche Diagnostics Corporation, USA  
SOURCE: U.S. Pat. Appl. Publ., 23 pp., Cont.-in-part of U.S.  
Ser. No. 87,612.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

*this applies*

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004077021	A1	20040422	US 2003-622524	20030718
US 2003170917	A1	20030911	US 2002-87612	20020301
JP 2004123692	A2	20040422	JP 2003-49992	20030226
PRIORITY APPLN. INFO.:			US 2002-87612	A2 20020301
OTHER SOURCE(S):			MARPAT 140:334030	

AB Comps. including haptens, intermediates, and immunogens that are useful in the production of antibodies specific for the methylenedioxy class of amphetamine derivs. are described. Antibodies specific for the methylenedioxy class of amphetamine derivs., reagent kits containing antibodies specific for the methylenedioxy class of amphetamine derivs., methods of producing antibodies specific for the methylenedioxy class of amphetamine derivs., and methods of detecting analytes including members of the methylenedioxy class of amphetamine derivs. are also described.

IC ICM G01N033-53

NCL 435007100

CC 4-2 (Toxicology)

Section cross-reference(s): 1, 64

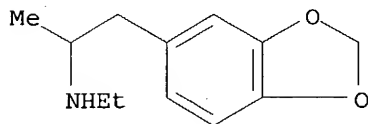
IT Antigens

RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic

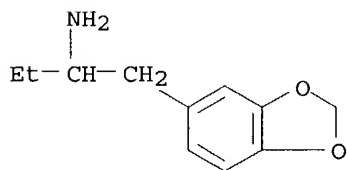
- preparation); BIOL (Biological study); PREP (Preparation)  
(conjugates; derivs., conjugates, and **antibodies** for  
detecting **ecstasy**-class analytes)
- IT Haptens  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(derivs., conjugates, and **antibodies** for detecting  
**ecstasy**-class analytes)
- IT Antibodies and Immunoglobulins  
Thyroglobulin  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(derivs., conjugates, and **antibodies** for detecting  
**ecstasy**-class analytes)
- IT Forensic analysis  
(drug; derivs., conjugates, and **antibodies** for detecting  
**ecstasy**-class analytes)
- IT Immunoassay  
(enzyme-linked immunosorbent assay; derivs., conjugates, and  
**antibodies** for detecting **ecstasy**-class analytes)
- IT Hemocyanins  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(keyhole limpet; derivs., conjugates, and **antibodies** for  
detecting **ecstasy**-class analytes)
- IT Antibodies and Immunoglobulins  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(monoclonal; derivs., conjugates, and **antibodies** for  
detecting **ecstasy**-class analytes)
- IT Albumins, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(serum; derivs., conjugates, and **antibodies** for detecting  
**ecstasy**-class analytes)
- IT 681028-35-3DP, conjugates with keyhole limpet hemocyanin  
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);  
BIOL (Biological study); PREP (Preparation)  
(**MDMA** immunogen synthesis; derivs., conjugates, and  
**antibodies** for detecting **ecstasy**-class analytes)
- IT 82801-81-8, 3,4-Methylenedioxy-N-ethylamphetamine  
107447-03-0, 1-(3,4-Methylenedioxyphenyl)-2-butanamine  
135795-90-3 590346-21-7  
RL: ANT (Analyte); ANST (Analytical study)  
(derivs., conjugates, and **antibodies** for detecting  
**ecstasy**-class analytes)
- IT 42542-10-9, **Ecstasy**  
RL: ANT (Analyte); RCT (Reactant); ANST (Analytical study); RACT (Reactant  
or reagent)  
(derivs., conjugates, and **antibodies** for detecting  
**ecstasy**-class analytes)
- IT 681028-36-4DP, conjugates with keyhole limpet hemocyanin  
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);  
BIOL (Biological study); PREP (Preparation)  
(derivs., conjugates, and **antibodies** for detecting  
**ecstasy**-class analytes)
- IT 56-91-7, 4-Aminomethylbenzoic acid  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(derivs., conjugates, and **antibodies** for detecting  
**ecstasy**-class analytes)
- IT 681028-37-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(derivs., conjugates, and **antibodies** for detecting



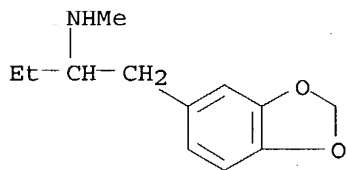
ecstasy-class analytes)  
 IT 590346-20-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (derivs., conjugates, and **antibodies** for detecting  
 ecstasy-class analytes)  
 IT 4764-17-4P, Methylenedioxyamphetamine  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Préparation); RACT  
 (Reactant or reagent)  
 (preparation and reaction with Et bromobutyrate)  
 IT 82801-81-8, 3,4-Methylenedioxy-N-ethylamphetamine  
 107447-03-0, 1-(3,4-Methylenedioxyphenyl)-2-butanamine  
 135795-90-3  
 RL: ANT (Analyte); ANST (Analytical study)  
 (derivs., conjugates, and **antibodies** for detecting  
 ecstasy-class analytes)  
 RN 82801-81-8 HCAPLUS  
 CN 1,3-Benzodioxole-5-ethanamine, N-ethyl- $\alpha$ -methyl- (9CI) (CA INDEX  
 NAME)



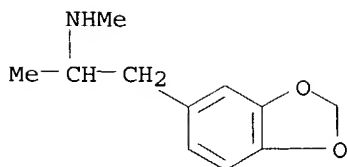
RN 107447-03-0 HCAPLUS  
 CN 1,3-Benzodioxole-5-ethanamine,  $\alpha$ -ethyl- (9CI) (CA INDEX NAME)



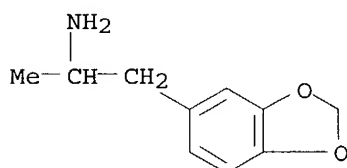
RN 135795-90-3 HCAPLUS  
 CN 1,3-Benzodioxole-5-ethanamine,  $\alpha$ -ethyl-N-methyl- (9CI) (CA INDEX  
 NAME)



IT 42542-10-9, Ecstasy  
 RL: ANT (Analyte); RCT (Reactant); ANST (Analytical study); RACT (Reactant  
 or reagent)  
 (derivs., conjugates, and **antibodies** for detecting  
 ecstasy-class analytes)  
 RN 42542-10-9 HCAPLUS  
 CN 1,3-Benzodioxole-5-ethanamine, N, $\alpha$ -dimethyl- (9CI) (CA INDEX NAME)



IT 4764-17-4P, Methylenedioxyamphetamine  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation and reaction with Et bromobutyrate)  
 RN 4764-17-4 HCAPLUS  
 CN 1,3-Benzodioxole-5-ethanamine,  $\alpha$ -methyl- (9CI) (CA INDEX NAME)

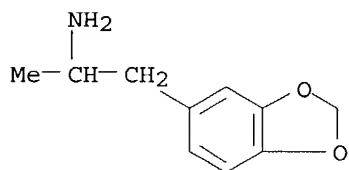


L28 ANSWER (2) OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2003:693233 HCAPLUS  
 DOCUMENT NUMBER: 139:207730  
 TITLE: Antibodies for detecting amphetamine derivatives,  
 compounds useful in antibody production, reagent kits,  
 and detection methods for amphetamine derivatives  
 INVENTOR(S): Hui, Raymond A.  
 PATENT ASSIGNEE(S): Roche Diagnostics G.m.b.H., Germany; F. Hoffmann-La  
 Roche A.-G.  
 SOURCE: Eur. Pat. Appl., 30 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

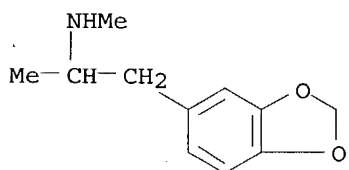
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1340981	A2	20030903	EP 2003-3298	20030225
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2003175995	A1	20030918	US 2002-87469	20020301
JP 2004002316	A2	20040108	JP 2003-49924	20030226
PRIORITY APPLN. INFO.:			US 2002-87469	A 20020301
OTHER SOURCE(S):	MARPAT 139:207730			
AB Compds. including haptens, intermediates, and immunogens that are useful in the production of antibodies specific for the methylenedioxy class of amphetamine derivs. are described. Antibodies specific for the methylenedioxy class of amphetamine derivs., reagent kits containing antibodies specific for the methylenedioxy class of amphetamine derivs., methods of producing antibodies specific for the methylenedioxy class of amphetamine derivs., and methods of detecting analytes including members				

of the methylenedioxy class of amphetamine derivs. are also described.

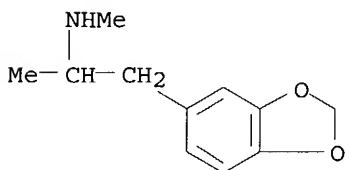
IC ICM G01N033-94  
ICS C07K016-00; C07D317-58  
CC 1-1 (Pharmacology)  
Section cross-reference(s): 15, 28  
IT 300-62-9, Amphetamine 300-62-9D, Amphetamine, derivs. **4764-17-4**  
, **MDA 42542-10-9**, **MDMA 42542-10-9D**  
, **Ecstasy**, derivs. **74698-36-5**, **MDPA**  
**82801-81-8**, **MDEA 107447-03-0**, **BDB**  
**135795-90-3**, **MBDB**  
RL: ANT (Analyte); ANST (Analytical study)  
(antibodies for detecting amphetamine derivs., compds. for  
antibody production, reagent kits, and detection methods for  
amphetamine derivs.)  
IT **4764-17-4**, **MDA 42542-10-9**, **MDMA**  
**42542-10-9D**, **Ecstasy**, derivs. **74698-36-5**,  
**MDPA 82801-81-8**, **MDEA 107447-03-0**,  
**BDB 135795-90-3**, **MBDB**  
RL: ANT (Analyte); ANST (Analytical study)  
(antibodies for detecting amphetamine derivs., compds. for  
antibody production, reagent kits, and detection methods for  
amphetamine derivs.)  
RN 4764-17-4 HCAPLUS  
CN 1,3-Benzodioxole-5-ethanamine,  $\alpha$ -methyl- (9CI) (CA INDEX NAME)



RN 42542-10-9 HCAPLUS  
CN 1,3-Benzodioxole-5-ethanamine, N, $\alpha$ -dimethyl- (9CI) (CA INDEX NAME)

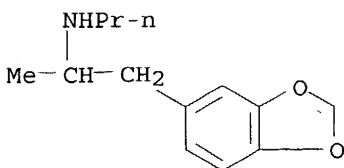


RN 42542-10-9 HCAPLUS  
CN 1,3-Benzodioxole-5-ethanamine, N, $\alpha$ -dimethyl- (9CI) (CA INDEX NAME)



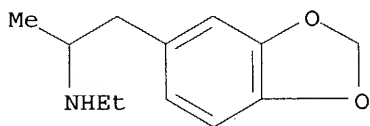
RN 74698-36-5 HCAPLUS

CN 1,3-Benzodioxole-5-ethanamine,  $\alpha$ -methyl-N-propyl- (9CI) (CA INDEX NAME)



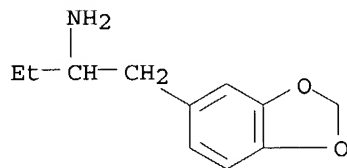
RN 82801-81-8 HCAPLUS

CN 1,3-Benzodioxole-5-ethanamine, N-ethyl- $\alpha$ -methyl- (9CI) (CA INDEX NAME)



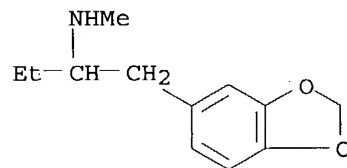
RN 107447-03-0 HCAPLUS

CN 1,3-Benzodioxole-5-ethanamine,  $\alpha$ -ethyl- (9CI) (CA INDEX NAME)



RN 135795-90-3 HCAPLUS

CN 1,3-Benzodioxole-5-ethanamine,  $\alpha$ -ethyl-N-methyl- (9CI) (CA INDEX NAME)



L28 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:693232 HCAPLUS

DOCUMENT NUMBER: 139:207729

TITLE: Amphetamine derivatives, antibodies to the derivatives, reagent kits, methods of producing the antibodies, and methods of detecting the derivatives  
INVENTOR(S): Hui, Raymond A.; Root, Richard T.; Vitone, Stephan S.  
PATENT ASSIGNEE(S): Roche Diagnostics G.m.b.H., Germany; F. Hoffmann-La Roche A.-G.

SOURCE: Eur. Pat. Appl., 34 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1340980	A1	20030903	EP 2003-3297	20030225
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2003170917	A1	20030911	US 2002-87612	20020301
JP 2004123692	A2	20040422	JP 2003-49992	20030226
PRIORITY APPLN. INFO.: OTHER SOURCE(S): MARPAT 139:207729			US 2002-87612	A 20020301

AB Comps. including haptens, intermediates, and immunogens that are useful in the production of antibodies specific for the methylenedioxy class of amphetamine derivs. are described. Antibodies specific for the methylenedioxy class of amphetamine derivs., reagent kits containing antibodies specific for the methylenedioxy class of amphetamine derivs., methods of producing antibodies specific for the methylenedioxy class of amphetamine derivs., and methods of detecting analytes including members of the methylenedioxy class of amphetamine derivs. are also described.

IC ICM G01N033-94  
ICS A61K031-135; C07C211-26

CC 1-1 (Pharmacology)  
Section cross-reference(s): 15, 28

IT 300-62-9, Amphetamine 300-62-9D, Amphetamine, derivs. 42542-10-9, Ecstasy 42542-10-9D, Ecstasy, derivs. 82801-81-8, MDEA  
 RL: ANT (Analyte); ANST (Analytical study)  
 (amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

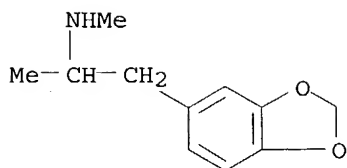
IT 51-41-2, Norepinephrine 51-43-4, Adrenaline 51-64-9 51-67-2, Tyramine 90-82-4, Pseudoephedrine 122-09-8, Phentermine 156-34-3 299-42-3, Ephedrine 607-80-7, Sesamin 634-03-7, Phendimetrazine 14838-15-4, Phenylpropanolamine 33817-09-3 66142-89-0 66357-35-5, Ranitidine 74698-36-5, MDPA 107447-03-0, BDB 135795-90-3, MBDB  
 RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)  
 (cross-reactivity; amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT 4764-17-4P, MDA  
 RL: ANT (Analyte); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
 (cross-reactivity; amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT 42542-10-9, Ecstasy 42542-10-9D, Ecstasy, derivs. 82801-81-8, MDEA  
 RL: ANT (Analyte); ANST (Analytical study)  
 (amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

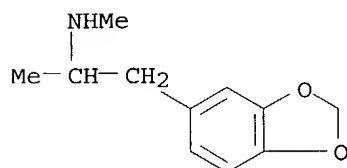
RN 42542-10-9 HCAPLUS

CN 1,3-Benzodioxole-5-ethanamine, N, $\alpha$ -dimethyl- (9CI) (CA INDEX NAME)



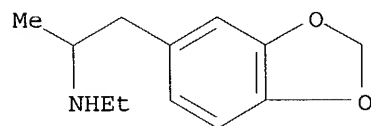
RN 42542-10-9 HCAPLUS

CN 1,3-Benzodioxole-5-ethanamine, N,α-dimethyl- (9CI) (CA INDEX NAME)



RN 82801-81-8 HCAPLUS

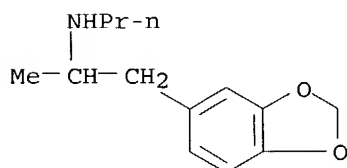
CN 1,3-Benzodioxole-5-ethanamine, N-ethyl-α-methyl- (9CI) (CA INDEX NAME)

IT 74698-36-5, MDPA 107447-03-0, BDB 135795-90-3,  
MBDB

RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)  
(cross-reactivity; amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

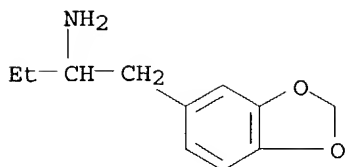
RN 74698-36-5 HCAPLUS

CN 1,3-Benzodioxole-5-ethanamine, α-methyl-N-propyl- (9CI) (CA INDEX NAME)

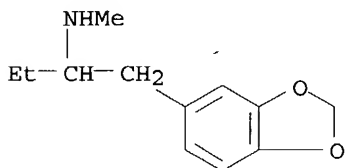


RN 107447-03-0 HCAPLUS

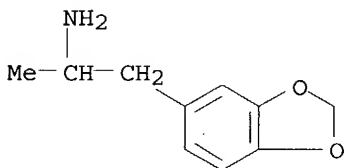
CN 1,3-Benzodioxole-5-ethanamine, α-ethyl- (9CI) (CA INDEX NAME)



RN 135795-90-3 HCAPLUS  
 CN 1,3-Benzodioxole-5-ethanamine,  $\alpha$ -ethyl-N-methyl- (9CI) (CA INDEX NAME)



IT **4764-17-4P**, MDA  
 RL: ANT (Analyte); BSU (Biological study, unclassified); RCT (Reactant);  
 SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological  
 study); PREP (Preparation); RACT (Reactant or reagent)  
 (cross-reactivity; amphetamine derivs., anti-derivative **antibodies**  
 , reagent kits, **antibody** production, and derivative detection  
 methods)  
 RN 4764-17-4 HCAPLUS  
 CN 1,3-Benzodioxole-5-ethanamine,  $\alpha$ -methyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER **4** OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:590958 HCAPLUS

DOCUMENT NUMBER: 139:132450

TITLE: Monoclonal and polyclonal antibodies for detecting and  
 treating overdose, addiction and abuse of amphetamine  
 or derivatives

INVENTOR(S): Pouletty, Philippe; Kusmierek, Jacques; Koralewski,  
 Frederic; Galons, Herve; Blanchard, Dominique; Gadjou,  
 Caroline

PATENT ASSIGNEE(S): Drugabuse Sciences, Inc., USA

SOURCE: PCT Int. Appl., 55 pp.

CODEN: PIXXD2

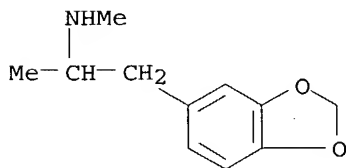
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003061595	A2	20030731	WO 2003-US2076	20030122
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003171435	A1	20030911	US 2002-57791	20020123
PRIORITY APPLN. INFO.:			US 2002-57791	A 20020123
OTHER SOURCE(S): MARPAT 139:132450				
AB	Hapten-carrier conjugates capable of eliciting anti-hapten antibodies in vivo to amphetamines are disclosed. Methods of preparing the hapten-carrier conjugates and therapeutic compns. are also disclosed. A therapeutic composition containing the hapten-carrier conjugate is useful in the treatment of			
	addiction to amphetamines. Passive immunization using antibodies raised against conjugates of the instant invention also is disclosed. The therapeutic composition is suitable for co-therapy with other conventional drugs for treatment of amphetamine abuse.			
IC	ICM A61K			
CC	15-2 (Immunochemistry)			
	Section cross-reference(s): 1, 3, 4, 9			
IT	300-62-9D, Amphetamine, derivs. 457-87-4, N-Ethylamphetamine 14116-06-4, 4-Methylthio-amphetamine <b>42542-10-9, Ecstasy</b>			
	RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)			
	(monoclonal and polyclonal <b>antibodies</b> for detecting and treating overdose, addiction and abuse of amphetamine or derivs.)			
IT	<b>42542-10-9, Ecstasy</b>			
	RL: ADV (Adverse effect, including toxicity); ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)			
	(monoclonal and polyclonal <b>antibodies</b> for detecting and treating overdose, addiction and abuse of amphetamine or derivs.)			
RN	42542-10-9 HCAPLUS			
CN	1,3-Benzodioxole-5-ethanamine, N, $\alpha$ -dimethyl- (9CI) (CA INDEX NAME)			



L28 ANSWER (5) OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:589502 HCAPLUS

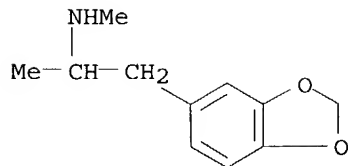
DOCUMENT NUMBER: 139:133711

TITLE: Preparation of new amphetamine derivatives, antibodies against them and pharmaceutical compositions



INVENTOR(S): containing them  
 Pouletty, Philippe; Kusmierek, Jacques; Koralewski,  
 Frederic; Galons, Herve; Blanchard, Dominique; Gadjou,  
 Caroline; Danger, Yannic  
 PATENT ASSIGNEE(S): Drug Abuse Sciences, Inc., USA  
 SOURCE: Eur. Pat. Appl., 38 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1331219	A1	20030730	EP 2002-290169	20020123
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRIORITY APPLN. INFO.:			EP 2002-290169	20020123
OTHER SOURCE(S): CASREACT 139:133711; MARPAT 139:133711				
AB	Hapten-carrier conjugates, (S)- I [R1, R3 = H, C1-3-alkyl; R2 = H, C1-3-alkyl, polymethylene chain, (CH2)nCO2H; n = 1 - 6; R4, R6, R7 = H, halogen, OR9, SR9; R9 = H, C1-3-alkyl; R5 = H, polymethylene chain, (CH2)mR10; R10 = CO2H, SH, CONHR13SH, CONHCHR11SH; R13 = CH(CO2H)CH2, (CH2)m; m = 1 - 4, with the proviso that R1 = H, R2 = Me or R1 = Me, R2 = H and R5 ≠ polymethylene chain, (CH2)nCO2H], capable of eliciting anti-hapten antibodies in vivo to amphetamines are disclosed. Methods of preparing the hapten-carrier conjugates and therapeutic compns. are also disclosed. A therapeutic composition containing the hapten-carrier conjugate is useful in the treatment of addiction to amphetamines. Passive immunization using antibodies raised against conjugates of the current invention is also disclosed. The therapeutic composition is suitable for co-therapy with other conventional drugs for treatment of amphetamine abuse.			
IC	ICM C07C229-14			
ICS	C07C217-60; C07C323-60; C07K016-44; A61K039-00; A61K039-385; A61K039-395; C12N005-20; C12N005-10; C12N015-79			
CC	31-2 (Alkaloids) Section cross-reference(s): 1, 34, 63			
IT	51-43-4, Epinephrine 51-61-6, 3-Hydroxytyramine, biological studies 64-13-1, 4-Methoxyamphetamine 299-42-3, Ephedrine 300-62-9, Amphetamine 457-87-4, N-Ethylamphetamine 3213-30-7 14116-06-4, 4-(Methylthio)amphetamine 14838-15-4, Norephedrine 42542-10-9, <b>Ecstasy</b> 51018-28-1, Methylpseudoephedrine 113429-54-2, 4-Methoxymethamphetamine RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (preparation of new amphetamine derivs., <b>antibodies</b> against them and pharmaceutical compns. containing them)			
IT	42542-10-9, <b>Ecstasy</b> RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (preparation of new amphetamine derivs., <b>antibodies</b> against them and pharmaceutical compns. containing them)			
RN	42542-10-9 HCAPLUS			
CN	1,3-Benzodioxole-5-ethanamine, N,α-dimethyl- (9CI) (CA INDEX NAME)			



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2003:492553 HCAPLUS  
 DOCUMENT NUMBER: 139:51621  
 TITLE: Monoclonal antibody antagonists for treating medical problems associated with d-amphetamine-like drugs  
 INVENTOR(S): Owens, Samuel M.; Carroll, Frank Ivy; Abraham, Philip  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 48 pp., Cont.-in-part of U.S. Ser. No. 839,549.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003119083	A1	20030626	US 2002-255462	20020926
US 2001051158	A1	20011213	US 2001-839549	20010420
US <u>6669937</u>	B2	20031230		

PRIORITY APPLN. INFO.: US 2000-198902P P 20000420  
 US 2001-839549 A2 20010420

OTHER SOURCE(S): MARPAT 139:51621

AB The present invention provides synthetic immunochem. haptens for the generation of antibodies that are designed to recognize the common mol. features of d-methamphetamine-like abused stimulants with insignificant cross-reactivity to endogenous substrates (e.g. dopamine) or over-the-counter medications (e.g. l-methamphetamine, pseudoephedrine, phenylpropanolamine and ephedrine). The haptens comprise compound I [wherein R = ZR<sub>2</sub>COOR<sub>1</sub>; Z = O or S or single bond between R<sub>2</sub> and ortho, meta, para attachment sites; R<sub>2</sub> = alkyl, alkenyl, or alkynyl wherein the alkyl chain optionally contains O or NR<sub>3</sub>; R<sub>1</sub> = H or R<sub>4</sub>; R<sub>3</sub> = alkyl; and R<sub>4</sub> = -CH<sub>2</sub>CH<sub>2</sub>CN, 4-nitrophenyl, pentafluorophenyl, succinimide, or 2,3,5-trichlorophenyl]. These monoclonal antibodies and their antigen binding fragments are useful in treatment plans for abuse, addiction, and overdose.

IC ICM G01N033-53  
 ICS G01N033-537; G01N033-543; C07K016-42

NCL 435007920; 530388100; 424130100

CC 15-3 (Immunochemistry)  
 Section cross-reference(s): 1, 25

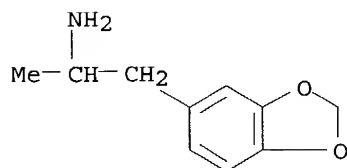
IT **4764-17-4**, 3,4-Methylenedioxymphetamine **42542-10-9**,  
 3,4-Methylenedioxymphetamine  
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
 (monoclonal **antibodies** to d-methamphetamine and its analogs  
 for immunotherapy of abuse, intoxication, and addiction)

IT **4764-17-4**, 3,4-Methylenedioxymphetamine **42542-10-9**,  
 3,4-Methylenedioxymphetamine

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(monoclonal **antibodies** to d-methamphetamine and its analogs  
for immunotherapy of abuse, intoxication, and addiction)

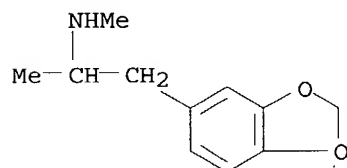
RN 4764-17-4 HCAPLUS

CN 1,3-Benzodioxole-5-ethanamine,  $\alpha$ -methyl- (9CI) (CA INDEX NAME)



RN 42542-10-9 HCAPLUS

CN 1,3-Benzodioxole-5-ethanamine, N, $\alpha$ -dimethyl- (9CI) (CA INDEX NAME)



L28 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:488680 HCAPLUS

DOCUMENT NUMBER: 139:48560

TITLE: Method and kit for detecting, or determining,  
3,4-methylenedioxymethamphetamine

INVENTOR(S): McConnell, Robert Ivan; Benchikh, El Ouard;  
Fitzgerald, Stephen P.; Lamont, John Victor

PATENT ASSIGNEE(S): Radox Laboratories Ltd., UK

SOURCE: Eur. Pat. Appl., 25 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1321772	A1	<u>20030625</u>	EP 2002-80462	20021217
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
CN 1429844	A	20030716	CN 2002-139960	20021220
US 2004121400	A1	20040624	<u>US 2002-326742</u>	20021220

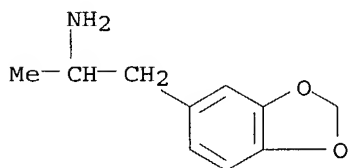
PRIORITY APPLN. INFO.: EP 2001-205058 A 20011220

OTHER SOURCE(S): MARPAT 139:48560

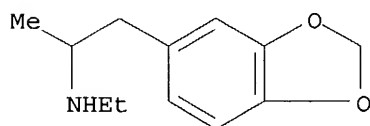
AB The present invention describes a hapten derivatized with a crosslinker at the N-position of 3,4-methylenedioxymethamphetamine (MDMA). The present invention provides an immunogen comprising the aforementioned hapten, coupled to an antigenicity-conferring carrier material, as well as, conjugates comprising the aforementioned hapten covalently bonded to a detectable labeling agent. In addition, the present invention concerns antibodies raised against the aforementioned immunogens. Finally, the

present invention relates to methods and kits for detecting or determining MDMA and N-alkylated derivs. of methylenedioxyamphetamine in biol. fluids. The antibodies of the present invention do not significantly cross-react with amphetamine and methamphetamine. Haptens and immunogens and horseradish peroxidase-labeled hapten reagents were prepared from (3,4-methylenedioxy)phenylacetic acid for the development of competitive ELISAs for MDMA.

- IC ICM G01N033-94  
 CC 4-1 (Toxicology)  
 Section cross-reference(s): 15, 28  
 IT 90-82-4, (+)-Pseudoephedrine 156-34-3 299-42-3, (-)-Ephedrine  
 321-97-1, (-)-Pseudoephedrine 321-98-2, (+)-Ephedrine **4764-17-4**  
 , **MDA 82801-81-8**, 3,4-Methylenedioxyethylamphetamine  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (antibody cross-reactivity with; immunoassay, haptens,  
 reagents and kit for determining 3,4-methylenedioxymethamphetamine in body  
 fluids)  
 IT **4764-17-4D**, Methylenedioxyamphetamine, N-alkylated derivs.  
 RL: ANT (Analyte); ANST (Analytical study)  
 (immunoassay, haptens, reagents and kit for determining 3,4-  
 methylenedioxymethamphetamine in body fluids)  
 IT **42542-10-9P**, 3,4-Methylenedioxymethamphetamine  
 RL: ANT (Analyte); SPN (Synthetic preparation); ANST (Analytical study);  
 PREP (Preparation)  
 (immunoassay, haptens, reagents and kit for determining 3,4-  
 methylenedioxymethamphetamine in body fluids)  
 IT **4764-17-4**, **MDA 82801-81-8**,  
 3,4-Methylenedioxyethylamphetamine  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (antibody cross-reactivity with; immunoassay, haptens,  
 reagents and kit for determining 3,4-methylenedioxymethamphetamine in body  
 fluids)  
 RN 4764-17-4 HCAPLUS  
 CN 1,3-Benzodioxole-5-ethanamine,  $\alpha$ -methyl- (9CI) (CA INDEX NAME)



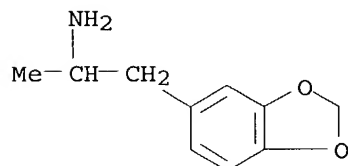
- RN 82801-81-8 HCAPLUS  
 CN 1,3-Benzodioxole-5-ethanamine, N-ethyl- $\alpha$ -methyl- (9CI) (CA INDEX NAME)



- IT **4764-17-4D**, Methylenedioxyamphetamine, N-alkylated derivs.  
 RL: ANT (Analyte); ANST (Analytical study)  
 (immunoassay, haptens, reagents and kit for determining 3,4-

methylenedioxymethamphetamine in body fluids)

RN 4764-17-4 HCAPLUS

CN 1,3-Benzodioxole-5-ethanamine,  $\alpha$ -methyl- (9CI) (CA INDEX NAME)

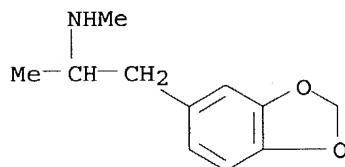
IT 42542-10-9P, 3,4-Methylenedioxymethamphetamine

RL: ANT (Analyte); SPN (Synthetic preparation); ANST (Analytical study);

PREP (Preparation)

(immunoassay, haptens, reagents and kit for determining 3,4-methylenedioxymethamphetamine in body fluids)

RN 42542-10-9 HCAPLUS

CN 1,3-Benzodioxole-5-ethanamine, N, $\alpha$ -dimethyl- (9CI) (CA INDEX NAME)

REFERENCE COUNT:

2

THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT.

L28 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:291807 HCAPLUS

DOCUMENT NUMBER: 139:159821

TITLE: Altered gene expression in frontal cortex and midbrain of 3,4-methylenedioxymethamphetamine (MDMA) treated mice: Differential regulation of GABA transporter subtypes

AUTHOR(S): Peng, Weiping; Simantov, Rabi

CORPORATE SOURCE: Department of Molecular Genetics, Weizmann Institute of Science, Rehovot, Israel

SOURCE: Journal of Neuroscience Research (2003), 72(2), 250-258

CODEN: JNREDK; ISSN: 0360-4012

PUBLISHER: Wiley-Liss, Inc.

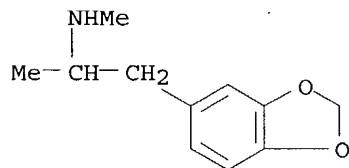
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Changes in gene expression were examined in the brain of mice treated with a drug of abuse, 3,4-methylenedioxymethamphetamine (MDMA, also called Ecstasy). Frontal cortex and midbrain mRNA, analyzed by differential display polymerase chain reaction (DD-PCR) method, showed an altered expression of several cDNAs, 11 of which were isolated, cloned and sequenced. The sequence of one MDMA-induced mRNA corresponds (99.3%) to the mouse  $\gamma$ -amino butyric acid (GABA) transporter 1 (mGAT1). The established involvement of GABA neurotransmission in the activity of several abused drugs prompted us to focus herein on MDMA effect on the GABA transporter gene family. Semi-quant. PCR anal. with primers

selective to the reported mGAT1 sequence confirmed that MDMA treatment increased mGAT1 expression. Time-course study of the expression of the three GABA transporter subtypes showed that MDMA induced a differential temporal activation of mGAT1 and mGAT4, but had no effect on mGAT2. Quant. real-time PCR further proved the increased expression of mGAT1 and mGAT4 upon MDMA treatment. Western immunoblotting with anti-GAT1 antibodies showed that MDMA also increased GAT1 protein levels, suggesting that neurotransmission of GABA was altered. MDMA effect was also verified in serotonin transporter knockout (-/-) mice that are insensitive behaviorally to MDMA; the drug did not increase GAT1 protein level in these mutants. In mice, tiagabine and NO-711, inhibitors of GABA transporters, restrained MDMA-induced acute toxicity and death. These results should facilitate novel approaches to prevent deleterious effects, including fatality, induced by MDMA and similar abused psychostimulants.

CC 1-11 (Pharmacology)  
 IT 42542-10-9, 3,4-Methylenedioxymethamphetamine  
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
 (MDMA toxicity and brain GABA transporters in relation to prevention of MDMA deleterious effects)  
 IT 42542-10-9, 3,4-Methylenedioxymethamphetamine  
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
 (MDMA toxicity and brain GABA transporters in relation to prevention of MDMA deleterious effects)  
 RN 42542-10-9 HCAPLUS  
 CN 1,3-Benzodioxole-5-ethanamine, N, $\alpha$ -dimethyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER (9) OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:242183 HCAPLUS

DOCUMENT NUMBER: 138:270293

TITLE: Vaccine compositions comprising anti-CD4 antibody or immunostimulatory nucleic acid and antigen-coupled virus-like particles for enhancement of immune responses

INVENTOR(S): Bachmann, Martin F.; Storni, Tazio; Lechner, Franziska

PATENT ASSIGNEE(S): Cytos Biotechnology A.-G., Switz.

SOURCE: PCT Int. Appl., 243 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003024480	A2	20030327	WO 2002-IB4252	20020916
WO 2003024480	A3	20031030		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003091593 A1 20030515 US 2002-243739 20020916 *At.*  
EP 1425040 A2 20040609 EP 2002-783338 20020916

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

PRIORITY APPLN. INFO.: US 2001-318967P P 20010914  
WO 2002-IB4252 W 20020916

AB The invention relates to the finding that stimulation of antigen presenting cell (APC) activation using substances such as anti-CD40 antibodies or DNA oligomers rich in non-methylated C and G (CpGs) can dramatically enhance the specific T cell response obtained after vaccination with recombinant virus like particles (VLPs) coupled, fused or otherwise attached to antigens. While vaccination with recombinant VLPs fused to a cytotoxic T cell (CTL) epitope of lymphocytic choriomeningitis virus induced low levels cytolytic activity only and did not induce efficient anti-viral protection, VLPs injected together with anti-CD40 antibodies or CpGs induced strong CTL activity and full anti-viral protection for treating tumors and chronic viral diseases. Thus, stimulation of APC-activation through antigen presenting cell activators such as anti-CD40 antibodies or CpGs can exhibit a potent adjuvant effect for vaccination with VLPs coupled, fused or attached otherwise to antigens.

IC ICM A61K039-00

CC 15-3 (Immunochemistry)

Section cross-reference(s): 2, 3, 63

IT 50-36-2, Cocaine 50-37-3, LSD 54-04-6, Mescaline 54-11-5, Nicotine 57-27-2, Morphium, biological studies 76-57-3, Codeine 113-45-1, Methylphenidate 300-62-9, Amphetamine 437-38-7, Fentanyl 520-52-5, Psilocybin 537-46-2, Methamphetamine 561-27-3, Heroin 1972-08-3, Tetrahydrocannabinol 9001-92-7, Protease 9002-10-2, Tyrosinase 24939-03-5, Poly-(I:C) 26700-94-7, Poly-(I:C) **42542-10-9**, Methylenedioxymethamphetamine 65988-71-8, GD2 151705-84-9 502953-36-8 502953-37-9 502953-38-0 502953-39-1 502953-40-4 502953-41-5 502953-42-6 502953-43-7 502953-44-8 502953-45-9

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antiviral and antitumor vaccines comprising anti-CD4 **antibody** or immunostimulatory nucleic acid and antigen-coupled virus-like particles for enhancement of immune responses and activation of antigen-presenting cells)

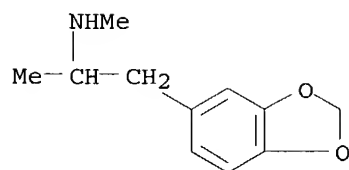
IT **42542-10-9**, Methylenedioxymethamphetamine

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antiviral and antitumor vaccines comprising anti-CD4 **antibody** or immunostimulatory nucleic acid and antigen-coupled virus-like particles for enhancement of immune responses and activation of antigen-presenting cells)

RN 42542-10-9 HCAPLUS

CN 1,3-Benzodioxole-5-ethanamine, N, $\alpha$ -dimethyl- (9CI) (CA INDEX NAME)



L28 ANSWER (10) OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:798299 HCAPLUS

DOCUMENT NUMBER: 135:343302

TITLE: Monoclonal antibody antagonists for treating medical problems associated with d-amphetamine-like drugs

INVENTOR(S): Owens, Samuel M.; Carroll, Frank Ivy; Abraham, Philip

PATENT ASSIGNEE(S): Board of Trustees of the University of Arkansas, USA

SOURCE: PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001081424	A1	20011101	WO 2001-US12899	20010420

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-198902P P 20000420

OTHER SOURCE(S): MARPAT 135:343302

AB The authors disclose the generation of antibodies designed to recognize the common mol. features of d-methamphetamine-like abused stimulants. The antibodies will have insignificant cross-reactivity with endogenous substrates (e.g. dopamine) or over-the-counter medications (e.g. l-methamphetamine, pseudoephedrine, phenylpropanolamine and ephedrine). These antibodies, and their antigen binding fragments, are useful in treatment plans for recovering addicts, in emergency room settings for rapidly reversing a drug overdose, in protection of fetuses or fetus from drug-abusing pregnant mothers or in a psychiatric setting to reduce the exacerbation of psychotic disorders caused by stimulant drugs.

IC ICM C07K016-44  
ICS C07K017-06; C07C229-02; C07D207-09

CC 15-3 (Immunochemistry)  
Section cross-reference(s): 1, 31

IT 51-64-9 537-46-2, Methamphetamine 4764-17-4,  
3,4-Methylenedioxyamphetamine 42542-10-9, 3,4-Methylenedioxymethamphetamine

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(monoclonal antibodies to amphetamine and related compds.)

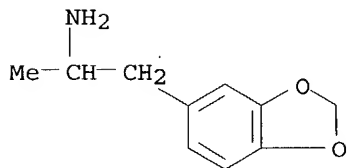
IT 4764-17-4, 3,4-Methylenedioxyamphetamine 42542-10-9,



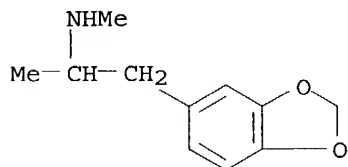
## 3,4-Methylenedioxymethamphetamine

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(monoclonal **antibodies** to amphetamine and related compds.)

RN 4764-17-4 HCAPLUS

CN 1,3-Benzodioxole-5-ethanamine,  $\alpha$ -methyl- (9CI) (CA INDEX NAME)

RN 42542-10-9 HCAPLUS

CN 1,3-Benzodioxole-5-ethanamine, N, $\alpha$ -dimethyl- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L28 ANSWER (11) OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1990:71776 HCAPLUS

DOCUMENT NUMBER: 112:71776

TITLE: Enzyme linked immunosorbent assay (ELISA) using  
monoclonal antibody to detect methamphetamine in urine  
and hair

AUTHOR(S): Nakahara, Yuji; Ishigami, Akiko; Takeda, Yasushi;  
Usagawa, Takashi; Uda, Taizo

CORPORATE SOURCE: Natl. Inst. Hyg. Sci., Tokyo, 158, Japan

SOURCE: Eisei Kagaku (1989), 35(5), 333-8

CODEN: ESKGA2; ISSN: 0013-273X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The cross reactivity of monoclonal antibody of methamphetamine (I) against  
ephedrine, methylephedrine, methoxyphenamine, phentermine, norephedrine,  
N,N-dibenzylendiamine, p-methoxyamphetamine, p-hydroxymethamphetamine,  
p-methoxymethamphetamine, methylenedioxyamphetamine, labetalol, and other  
related compds. was 0.1, 1.5, 0.2, 0.4, <0.1, 0.5, 0.2, 1.3, 3.3, 0.9,  
2.6, and <1.0%, resp., but that against dimethylamphetamine was 150%. The  
detection limit of I in urine was 0.2  $\mu$ g/mL at the 95% confidence limit  
and the working range 0.3-30  $\mu$ g/mL. The coeffs. of variation of the  
assay for I in urine at 1  $\mu$ g/mL were 5.68% for within-run and 8.26% for  
between-run. The correlation coefficient between this assay and GC-mass  
spectrometry method of 48 urine specimens was 0.9934. The assay required  
5  $\mu$ L of specimen in 50  $\mu$ L of total assay volume, and took about 1 h  
for 96 specimens. The assay could also be applied to hair anal. to  
monitor I abuse history.

CC 4-2 (Toxicology)

IT 54-04-6, Mescaline 64-13-1 93-30-1, Methoxyphenamine 103-86-6,

p-Hydroxyamphetamine 122-09-8, Phentermine 140-28-3, Benzathine  
299-42-3, Ephedrine 300-62-9, Amphetamine 365-26-4, p-Hydroxyephedrine  
370-14-9, p-Hydroxymethamphetamine 492-41-1, Norephedrine 552-79-4,  
Methylephedrine 771-91-5, p-Hydroxynorephedrine 4075-96-1,  
Dimethylamphetamine **4764-17-4**, Methylenedioxyamphetamine  
15588-95-1, STP 22331-70-0 36894-69-6, Labetalol

RL: BIOL (Biological study)

(methamphetamine cross reactivity with, in detection by monoclonal  
**antibody**-based ELISA)

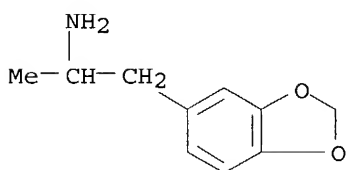
IT **4764-17-4**, Methylenedioxyamphetamine

RL: BIOL (Biological study)

(methamphetamine cross reactivity with, in detection by monoclonal  
**antibody**-based ELISA)

RN 4764-17-4 HCAPLUS

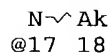
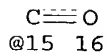
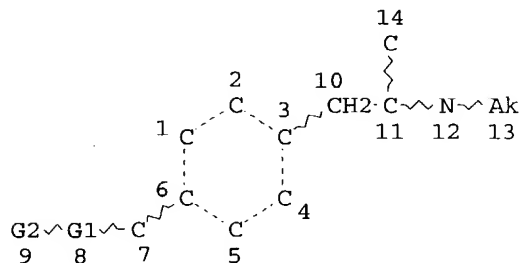
CN 1,3-Benzodioxolè-5-ethanamine,  $\alpha$ -methyl- (9CI) (CA INDEX NAME)



<c>Ceperley 10/087,612<r> July 27,2004

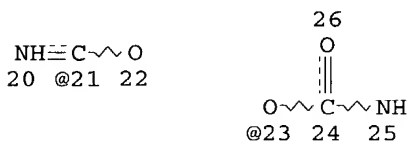
=> d que 16

L1 STR



S @19

*Considered  
09/14/04  
MEC*



REP G1=(0-20) A  
VAR G2=15/NH/17/19/21/23  
NODE ATTRIBUTES:  
CONNECT IS E3 RC AT 11  
CONNECT IS E1 RC AT 13  
CONNECT IS E1 RC AT 18  
CONNECT IS X2 RC AT 19  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED  
ECOUNT IS M2 C AT 13

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 26

STEREO ATTRIBUTES: NONE

L3 19 SEA FILE=REGISTRY SSS FUL L1  
L4 10 SEA FILE=HCAPLUS ABB=ON PLU=ON L3  
L5 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L4 AND (?ANTIBOD? OR ?ANTIGEN?  
OR ?IMMUN? OR ?HAPTEN? OR ?ASSAY? OR ?LABEL? OR ?TRACER? OR  
?OVALBUM? OR ?POLYSACC? OR ?LYSINE?)  
L6 10 SEA FILE=HCAPLUS ABB=ON PLU=ON L4 OR L5

=> 'd 16 ibib ab hitind hitstr 1-10

L6 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2004:539953 HCAPLUS  
TITLE: Preparation of peptide factor Xa inhibitors as  
antithrombotics.  
INVENTOR(S): Al-Obeidi, Fahad; Lebl, Michal; Ostrem, James A.;  
Safar, Pavel; Stierandova, Alena; Strop, Peter;  
Walser, Armin  
PATENT ASSIGNEE(S): Aventis Pharmaceuticals Inc., USA  
SOURCE: U.S., 32 pp., Cont.-in-part of U.S. 5,849,510.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>

<c>Ceperley 10/087,612<r> July 27,2004

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6759384	B1	20040706	US 1998-211715	19981214
EP 1384725	A2	20040128	EP 2003-21617	19950425
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
US 5849510	A	19981215	US 1997-947794	19971008
PRIORITY APPLN. INFO.:				
			US 1994-233054	B2 19940426
			US 1995-428404	B1 19950425
			US 1997-947794	A2 19971008
			EP 1995-917736	A3 19950425

AB The invention provides compds. A1-A2-(A3)m-B [m = 0, 1; A1 = R1-R2-R3; A2 = R4-R5-R6; A3 = R7-R8-R9; R1 = (substituted) 1-20 amino acid residues, R11CO, R11R12X; X = N, CH, NCO; R11, R12 = H, alkyl, acyl, aryl, aralkyl, protecting group; R2 = CR99R100; R99, R100 = H, (substituted) alkyl, aralkyl, heteroaralkyl, heteroaryl; R3 = CO, CH2, CHR99CO, etc.; R4 = CH2, imino; R5 = CR201R202; R201, R202 = H, (substituted) alkyl, aryl, aralkyl; R6 = CO, CH2, CHR99CO; R7 = (substituted) R4; R8 = CR210R211; R210, R211 = H, (substituted) alkyl, alkylaryl, heterocyclyl; R9 = CO, CH2, CHR99CO; B = (substituted) 1-20 amino acid residues, amino, OH, alkoxy, acyloxy, etc.; with provisos] which specifically inhibit factor Xa activity. A compound of the invention is characterized, in part, in that it exhibits a specific inhibition of factor Xa activity with a  $K_i \leq 100 \mu\text{M}$ , preferably  $\leq 2 \text{ nM}$ , and does not substantially inhibit the activity of other proteases involved in the coagulation cascade. Thus, Ac-Tyr-Chg-Arg-NH2 (Chg = cyclohexylglycyl) inhibited coagulation in human plasma with  $\text{EC}_{50} = 2.5 \mu\text{M}$ .

IC ICM A61K038-55  
ICS C07K001-00

NCL 514002000; 530384000; 530381000; 530380000; 530420000

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 1

IT INDEXING IN PROGRESS

IT 174132-11-7P 174132-12-8P 174132-13-9P 174132-14-0P 174132-15-1P  
174132-16-2P 174132-17-3P 174132-18-4P 174132-19-5P 174132-20-8P  
174132-21-9P 174132-22-0P 174132-23-1P 174132-24-2P 174132-25-3P  
174132-26-4P 174132-27-5P 174132-28-6P 174132-29-7P  
**174132-93-5P** 174132-94-6P 174132-95-7P 174133-06-3P  
174133-07-4P 174133-08-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of peptide factor Xa inhibitors as antithrombotics)

IT **174132-93-5P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of peptide factor Xa inhibitors as antithrombotics)

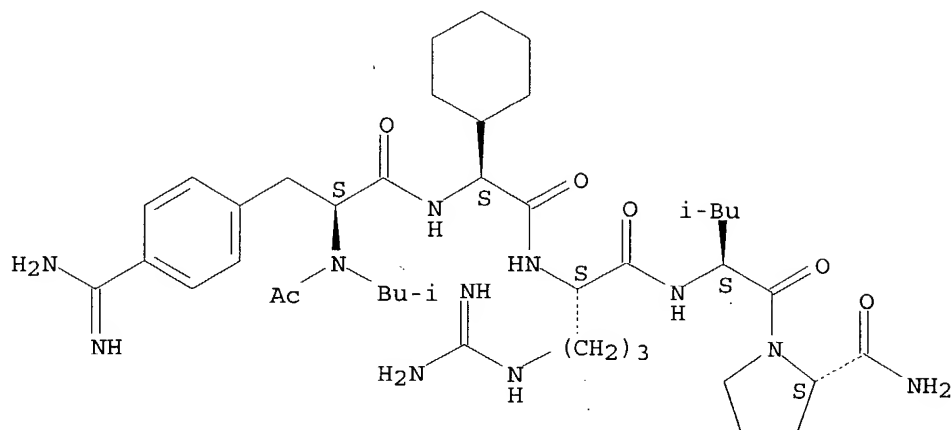
RN 174132-93-5 HCAPLUS

CN L-Prolinamide, N-acetyl-4-(aminoiminomethyl)-N-(2-methylpropyl)-L-phenylalanyl-L-2-cyclohexylglycyl-L-arginyl-L-leucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>

<c>Ceperley 10/087,612<r> July 27,2004



REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER(2) OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2004:331676 HCAPLUS  
DOCUMENT NUMBER: 140:334030  
TITLE: Derivatives, conjugates, and **antibodies** for detecting ecstasy-class analytes  
INVENTOR(S): Hui, Raymond A.; Vitone, Stephen; Root, Richard Terry; Baburina, Irina; Jordan, Sheri  
PATENT ASSIGNEE(S): Roche Diagnostics Corporation, USA  
SOURCE: U.S. Pat. Appl. Publ., 23 pp., Cont.-in-part of U.S. Ser. No. 87,612.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004077021	A1	20040422	US 2003-622524	20030718
US 2003170917	A1	20030911	US 2002-87612	20020301
JP 2004123692	A2	20040422	JP 2003-49992	20030226

PRIORITY APPLN. INFO.: US 2002-87612 A2 20020301

OTHER SOURCE(S): MARPAT 140:334030

AB Compds. including **haptens**, intermediates, and **immunogens** that are useful in the production of **antibodies** specific for the methylenedioxy class of amphetamine derivs. are described. **Antibodies** specific for the methylenedioxy class of amphetamine derivs., reagent kits containing **antibodies** specific for the methylenedioxy class of amphetamine derivs., methods of producing **antibodies** specific for the methylenedioxy class of amphetamine derivs., and methods of detecting analytes including members of the methylenedioxy class of amphetamine derivs. are also described.

IC ICM G01N033-53

NCL 435007100

CC 4-2 (Toxicology)

Section cross-reference(s): 1, 64

ST **immunoassay** ecstasy type drug forensic

IT **Antigens**

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>

<c>Ceperley 10/087,612<r> July 27,2004

- RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(conjugates; derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
- IT **Haptens**  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
- IT **Antibodies and Immunoglobulins**  
Thyroglobulin  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
- IT Forensic analysis  
(drug; derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
- IT **Immunoassay**  
(enzyme-linked **immunosorbent assay**; derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
- IT Hemocyanins  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(keyhole limpet; derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
- IT **Antibodies and Immunoglobulins**  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(monoclonal; derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
- IT Albumins, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(serum; derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
- IT 681028-35-3DP, conjugates with keyhole limpet hemocyanin  
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(MDMA **immunogen** synthesis; derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
- IT 82801-81-8, 3,4-Methylenedioxy-N-ethylamphetamine 107447-03-0,  
1-(3,4-Methylenedioxyphenyl)-2-butanamine 135795-90-3  
**590346-21-7**  
RL: ANT (Analyte); ANST (Analytical study)  
(derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
- IT 42542-10-9, Ecstasy  
RL: ANT (Analyte); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)  
(derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
- IT **681028-36-4DP**, conjugates with keyhole limpet hemocyanin  
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
- IT 56-91-7, 4-Aminomethylbenzoic acid  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(derivs., conjugates, and **antibodies** for detecting ecstasy-class analytes)
- IT 681028-37-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>

<c>Ceperley 10/087,612<r> July 27,2004

(Reactant or reagent)

(derivs., conjugates, and **antibodies** for detecting  
ecstasy-class analytes)

IT 590346-20-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(derivs., conjugates, and **antibodies** for detecting  
ecstasy-class analytes)

IT 590346-18-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and esterification)

IT 590346-15-9P 590346-19-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and **immunogen** preparation from)

IT 590346-17-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and reduction)

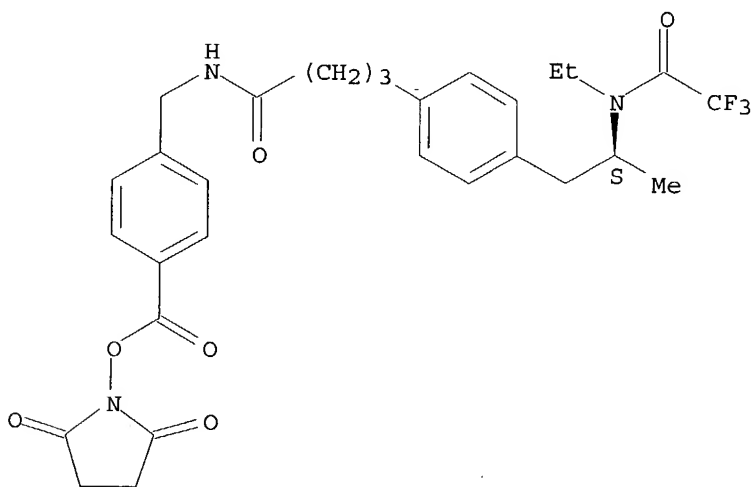
IT 590346-21-7

RL: ANT (Analyte); ANST (Analytical study)  
(derivs., conjugates, and **antibodies** for detecting  
ecstasy-class analytes)

RN 590346-21-7 HCAPLUS

CN Benzenebutanamide, N-[[4-[[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]phenyl]m  
ethyl]-4-[(2S)-2-[ethyl(trifluoroacetyl)amino]propyl]- (9CI) (CA INDEX  
NAME)

Absolute stereochemistry.



IT 681028-36-4DP, conjugates with keyhole limpet hemocyanin

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);  
BIOL (Biological study); PREP (Preparation)  
(derivs., conjugates, and **antibodies** for detecting  
ecstasy-class analytes)

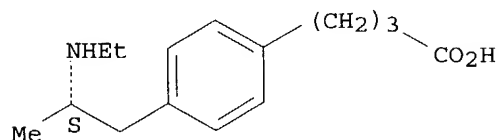
RN 681028-36-4 HCAPLUS

CN Benzenebutanoic acid, 4-[(2S)-2-(ethylamino)propyl]- (9CI) (CA INDEX  
NAME)

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>

<c>Ceperley 10/087,612<r> July 27,2004

Absolute stereochemistry.



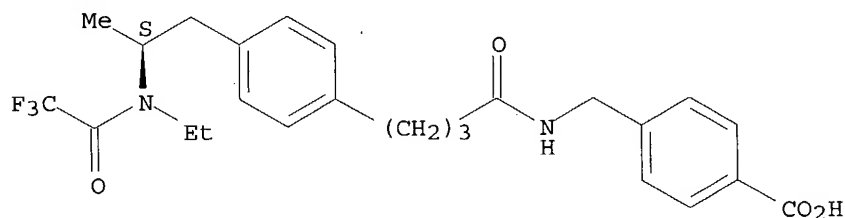
IT 590346-20-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(derivs., conjugates, and **antibodies** for detecting  
ecstasy-class analytes)

RN 590346-20-6 HCAPLUS

CN Benzoic acid, 4-[[[4-[4-[(2S)-2-[ethyl(trifluoroacetyl)amino]propyl]phenyl]-1-oxobutyl]amino]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



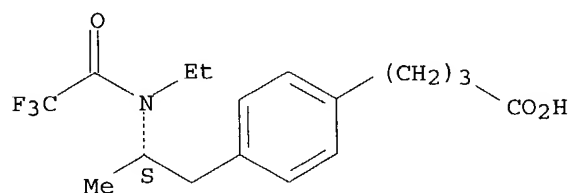
IT 590346-18-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and esterification)

RN 590346-18-2 HCAPLUS

CN Benzenebutanoic acid, 4-[(2S)-2-[ethyl(trifluoroacetyl)amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 590346-19-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and **immunogen** preparation from)

RN 590346-19-3 HCAPLUS

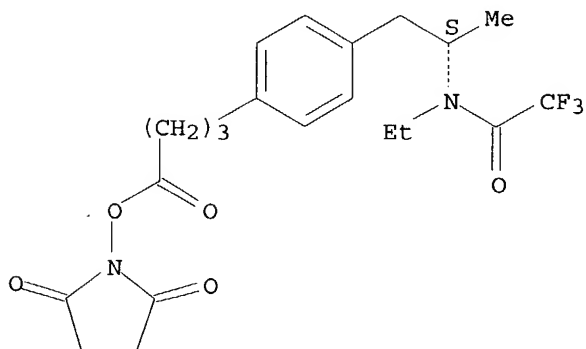
CN Acetamide, N-[(1S)-2-[4-[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutyl]phenyl]-1-methylethyl]-N-ethyl-2,2,2-trifluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>



<c>Ceperley 10/087,612<r> July 27,2004



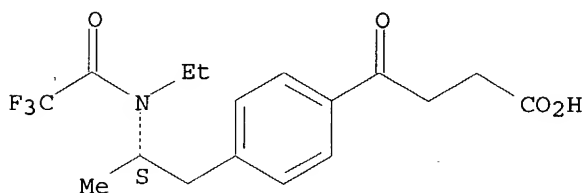
IT 590346-17-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and reduction)

RN 590346-17-1 HCAPLUS

CN Benzenebutanoic acid, 4-[(2S)-2-[ethyl(trifluoroacetyl)amino]propyl]-gamma-oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER (3) OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:693233 HCAPLUS

DOCUMENT NUMBER: 139:207730

TITLE: Antibodies for detecting amphetamine derivatives, compounds useful in antibody production, reagent kits, and detection methods for amphetamine derivatives

INVENTOR(S): Hui, Raymond A.

PATENT ASSIGNEE(S): Roche Diagnostics G.m.b.H., Germany; F. Hoffmann-La Roche A.-G.

SOURCE: Eur. Pat. Appl., 30 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1340981	A2	20030903	EP 2003-3298	20030225
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2003175995	A1	20030918	US 2002-87469	20020301
JP 2004002316	A2	20040108	JP 2003-49924	20030226

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>

<c>Ceperley 10/087,612<r> July 27,2004

PRIORITY APPLN. INFO.:

US 2002-87469

A 20020301

OTHER SOURCE(S):

MARPAT 139:207730

- AB Compds. including **haptens**, intermediates, and **immunogens** that are useful in the production of **antibodies** specific for the methylenedioxy class of amphetamine derivs. are described. **Antibodies** specific for the methylenedioxy class of amphetamine derivs., reagent kits containing **antibodies** specific for the methylenedioxy class of amphetamine derivs., methods of producing **antibodies** specific for the methylenedioxy class of amphetamine derivs., and methods of detecting analytes including members of the methylenedioxy class of amphetamine derivs. are also described.
- IC ICM G01N033-94  
ICS C07K016-00; C07D317-58
- CC 1-1 (Pharmacology)  
Section cross-reference(s): 15, 28
- ST amphetamine deriv **immunogen** prepn **immunoassay**  
**antibody**
- IT **Immunoassay**  
Test kits  
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)
- IT **Antibodies and Immunoglobulins**  
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)
- IT Albumins, biological studies  
Globulins, biological studies  
Hemocyanins  
Macromolecular compounds  
Peptides, biological studies  
**Polysaccharides**, biological studies  
Proteins  
Thyroglobulin  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(conjugates; **antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)
- IT **Immunoassay**  
(enzyme-linked **immunosorbent assay**;  
**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)
- IT **Antigens**  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(**immunogens**; **antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)
- IT **Antibodies and Immunoglobulins**  
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(monoclonal; **antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>

<c>Ceperley 10/087,612<r> July 27,2004

- methods for amphetamine derivs.)
- IT Albumins, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(serum, conjugates; **antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)
- IT 300-62-9, Amphetamine 300-62-9D, Amphetamine, derivs. 4764-17-4, MDA 42542-10-9, MDMA 42542-10-9D, Ecstasy, derivs. 74698-36-5, MDPA 82801-81-8, MDEA 107447-03-0, BDB 135795-90-3, MBDB  
RL: ANT (Analyte); ANST (Analytical study)  
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)
- IT 590346-23-9D, BSA conjugates  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)
- IT 590346-15-9DP, carrier protein conjugates **590346-19-3DP**, carrier protein conjugates  
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)
- IT 51-63-8 56-91-7, 4-(Aminomethyl)benzoic acid 74-96-4, Ethyl bromide 108-30-5, Succinic anhydride, reactions 407-25-0, Trifluoroacetic anhydride 2969-81-5, Ethyl 4-bromobutyrate 6066-82-6, N-Hydroxysuccinimide 590346-12-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)
- IT 33817-11-7P 590346-11-5P 590346-13-7P 590346-14-8P 590346-15-9P 590346-16-0P **590346-17-1P 590346-18-2P 590346-19-3P 590346-20-6P**  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)
- IT **590346-21-7P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(**antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)
- IT 51-41-2, Norepinephrine 51-43-4, Adrenaline 51-64-9 51-67-2, Tyramine 90-82-4, Pseudoephedrine 122-09-8, Phentermine 156-34-3 299-42-3, Ephedrine 537-46-2 607-80-7, Sesamin 634-03-7, Phendimetrazine 14838-15-4, Phenylpropanolamine 33817-09-3 66142-89-0 66357-35-5, Ranitidine  
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)  
(cross-reactivity; **antibodies** for detecting amphetamine derivs., compds. for **antibody** production, reagent kits, and detection methods for amphetamine derivs.)
- IT **590346-19-3DP**, carrier protein conjugates

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>

<c>Ceperley 10/087,612<r> July 27,2004

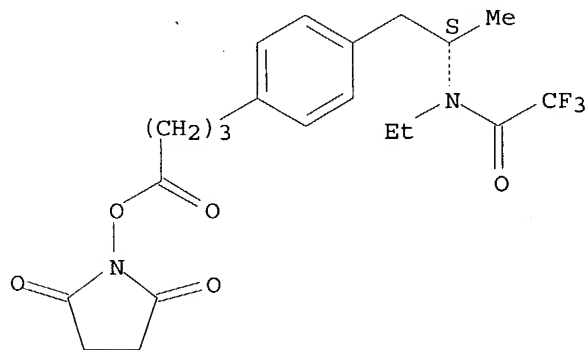
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(antibodies for detecting amphetamine derivs., compds. for antibody production, reagent kits, and detection methods for amphetamine derivs.)

RN 590346-19-3 HCAPLUS

CN Acetamide, N-[(1S)-2-[4-[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutyl]phenyl]-1-methylethyl]-N-ethyl-2,2,2-trifluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 590346-17-1P 590346-18-2P 590346-19-3P  
590346-20-6P

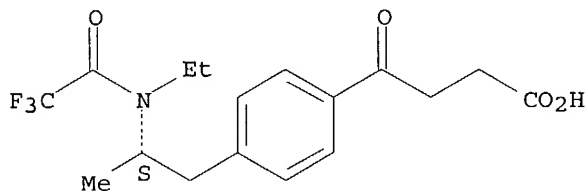
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(antibodies for detecting amphetamine derivs., compds. for antibody production, reagent kits, and detection methods for amphetamine derivs.)

RN 590346-17-1 HCAPLUS

CN Benzenebutanoic acid, 4-[(2S)-2-[ethyl(trifluoroacetyl)amino]propyl]- $\gamma$ -oxo- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



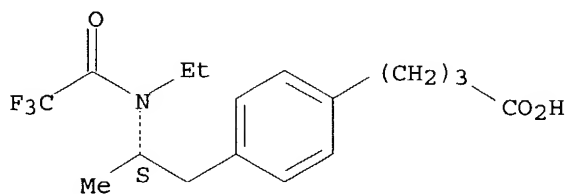
RN 590346-18-2 HCAPLUS

CN Benzenebutanoic acid, 4-[(2S)-2-[ethyl(trifluoroacetyl)amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

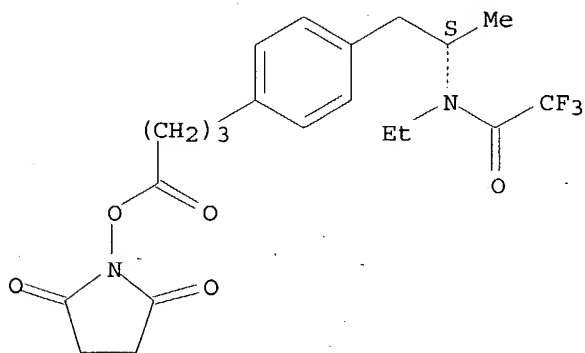
<c>Searched by Paul Schulwitz 571-272-2527 <r><p>

<c>Ceperley 10/087,612<r> July 27,2004



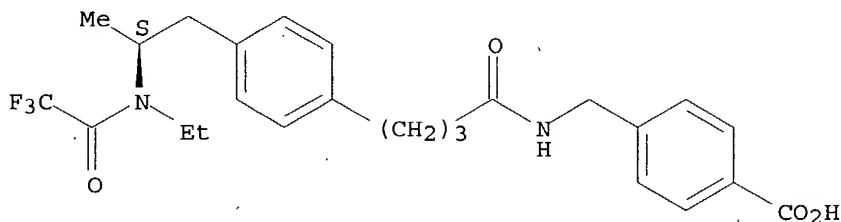
RN 590346-19-3 HCAPLUS  
CN Acetamide, N-[(1S)-2-[4-[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutyl]phenyl]-1-methylethyl]-N-ethyl-2,2,2-trifluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 590346-20-6 HCAPLUS  
CN Benzoic acid, 4-[[[4-[4-[(2S)-2-[ethyl(trifluoroacetyl)amino]propyl]phenyl]-1-oxobutyl]amino]methyl]- (9CI) (CA INDEX NAME)

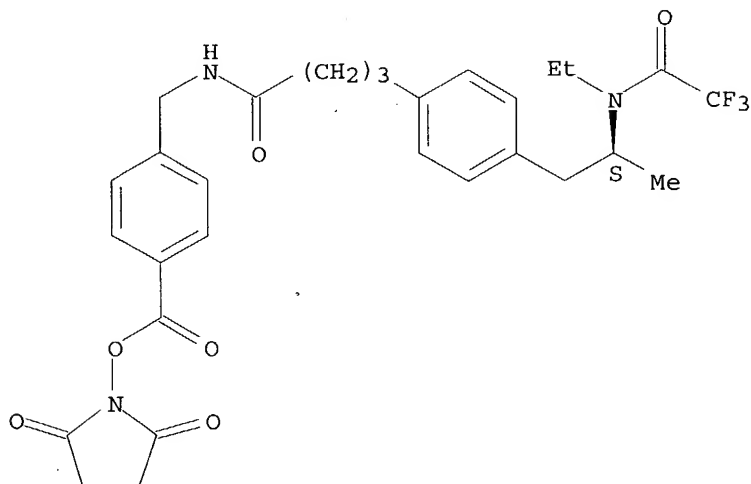
Absolute stereochemistry.



IT 590346-21-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(antibodies for detecting amphetamine derivs., compds. for antibody production, reagent kits, and detection methods for amphetamine derivs.)  
RN 590346-21-7 HCAPLUS  
CN Benzenebutanamide, N-[[4-[[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]phenyl]methyl]-4-[(2S)-2-[ethyl(trifluoroacetyl)amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>



L6 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:693232 HCAPLUS

DOCUMENT NUMBER: 139:207729

TITLE: Amphetamine derivatives, **antibodies** to the derivatives, reagent kits, methods of producing the **antibodies**, and methods of detecting the derivatives

INVENTOR(S): Hui Raymond A.; Root, Richard T.; Vitone, Stephan S.  
PATENT ASSIGNEE(S): Roche Diagnostics G.m.b.H., Germany; F. Hoffmann-La Roche A.-G.

SOURCE: Eur. Pat. Appl., 34 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1340980	A1	20030903	EP 2003-3297	20030225
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2003170917	A1	20030911	US 2002-87612	20020301
JP 2004123692	A2	20040422	JP 2003-49992	20030226
PRIORITY APPLN. INFO.:			US <u>2002-87612</u>	A 20020301

OTHER SOURCE(S): MARPAT 139:207729

AB Comps. including **hap**tens, intermediates, and **immunogens** that are useful in the production of **antibodies** specific for the methylenedioxy class of amphetamine derivs. are described. **Antibodies** specific for the methylenedioxy class of amphetamine derivs., reagent kits containing **antibodies** specific for the methylenedioxy class of amphetamine derivs., methods of producing **antibodies** specific for the methylenedioxy class of amphetamine derivs., and methods of detecting analytes including members of the methylenedioxy class of amphetamine derivs. are also described.

IC ICM G01N033-94

ICS A61K031-135; C07C211-26

CC 1-1 (Pharmacology)

*this applicn*

<c>Ceperley 10/087,612<r> July 27,2004

Section cross-reference(s): 15, 28

ST amphetamine deriv **immunogen** prepn **immunoassay**  
**antibody**

IT **Immunoassay**  
Test kits  
(amphetamine derivs., anti-derivative **antibodies**, reagent kits,  
**antibody** production, and derivative detection methods)

IT **Antibodies and Immunoglobulins**  
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST  
(Analytical study); BIOL (Biological study); PREP (Preparation); USES  
(Uses)  
(amphetamine derivs., anti-derivative **antibodies**, reagent kits,  
**antibody** production, and derivative detection methods)

IT Albumins, biological studies  
Globulins, biological studies  
Hemocyanins  
Macromolecular compounds  
Peptides, biological studies  
**Polysaccharides**, biological studies  
Proteins  
Thyroglobulin  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(conjugates; amphetamine derivs., anti-derivative **antibodies**,  
reagent kits, **antibody** production, and derivative detection methods)

IT **Immunoassay**  
(enzyme-linked **immunosorbent assay**; amphetamine  
derivs., anti-derivative **antibodies**, reagent kits,  
**antibody** production, and derivative detection methods)

IT **Antigens**  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(**immunogens**; amphetamine derivs., anti-derivative  
**antibodies**, reagent kits, **antibody** production, and derivative  
detection methods)

IT **Antibodies and Immunoglobulins**  
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST  
(Analytical study); BIOL (Biological study); PREP (Preparation); USES  
(Uses)  
(monoclonal; amphetamine derivs., anti-derivative **antibodies**,  
reagent kits, **antibody** production, and derivative detection methods)

IT Albumins, biological studies  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(serum, conjugates; amphetamine derivs., anti-derivative **antibodies**  
, reagent kits, **antibody** production, and derivative detection  
methods)

IT 300-62-9, Amphetamine 300-62-9D, Amphetamine, derivs. 42542-10-9,  
Ecstasy 42542-10-9D, Ecstasy, derivs. 82801-81-8, MDEA  
RL: ANT (Analyte); ANST (Analytical study)  
(amphetamine derivs., anti-derivative **antibodies**, reagent kits,  
**antibody** production, and derivative detection methods)

IT 590346-44-4D, BSA conjugates 590346-45-5D, BSA conjugates  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(amphetamine derivs., anti-derivative **antibodies**, reagent kits,  
**antibody** production, and derivative detection methods)

IT 590346-15-9DP, carrier protein conjugates **590346-19-3DP**, carrier  
protein conjugates

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>

<c>Ceperley 10/087,612<r> July 27,2004

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT 51-63-8 56-91-7, 4-(Aminomethyl)benzoic acid 74-96-4, Ethyl bromide 108-30-5, Succinic anhydride, reactions 407-25-0, Trifluoroacetic anhydride 2969-81-5, Ethyl 4-bromobutyrate 6066-82-6, N-Hydroxysuccinimide 590346-12-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT 33817-11-7P 590346-11-5P 590346-13-7P 590346-14-8P 590346-15-9P 590346-16-0P **590346-17-1P 590346-18-2P 590346-19-3P 590346-20-6P**  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT **590346-21-7P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT 51-41-2, Norepinephrine 51-43-4, Adrenaline 51-64-9 51-67-2, Tyramine 90-82-4, Pseudoephedrine 122-09-8, Phentermine 156-34-3 299-42-3, Ephedrine 607-80-7, Sesamin 634-03-7, Phendimetrazine 14838-15-4, Phenylpropanolamine 33817-09-3 66142-89-0 66357-35-5, Ranitidine 74698-36-5, MDPA 107447-03-0, BDB 135795-90-3, MBDB  
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)  
(cross-reactivity; amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT 4764-17-4P, MDA  
RL: ANT (Analyte); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
(cross-reactivity; amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

IT **590346-19-3DP**, carrier protein conjugates  
RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(amphetamine derivs., anti-derivative **antibodies**, reagent kits, **antibody** production, and derivative detection methods)

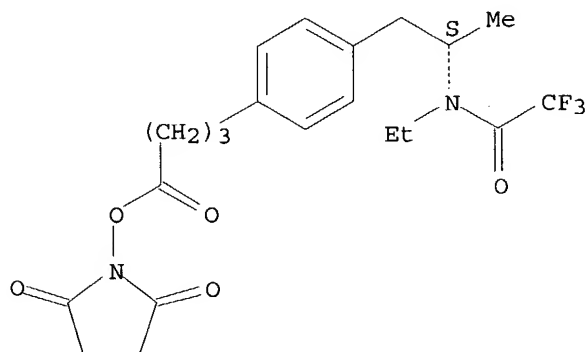
RN 590346-19-3 HCAPLUS  
CN Acetamide, N-[(1S)-2-[4-[4-[(2,5-dioxo-1-pyrrolidinyl)oxy]-4-oxobutyl]phenyl]-1-methylethyl]-N-ethyl-2,2,2-trifluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>



<c>Ceperley 10/087,612<r> July 27,2004



IT 590346-17-1P 590346-18-2P 590346-19-3P  
590346-20-6P

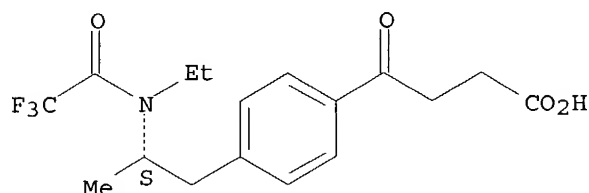
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(amphetamine derivs., anti-derivative **antibodies**, reagent kits,  
**antibody** production, and derivative detection methods)

RN 590346-17-1 HCAPLUS

CN Benzenebutanoic acid, 4-[(2S)-2-[ethyl(trifluoroacetyl)amino]propyl]-  
gamma-oxo- (9CI) (CA INDEX NAME)

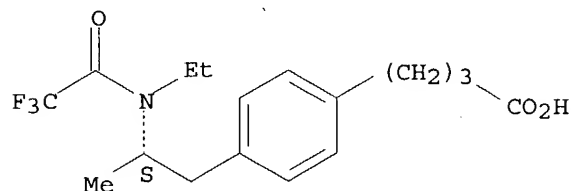
Absolute stereochemistry.



RN 590346-18-2 HCAPLUS

CN Benzenebutanoic acid, 4-[(2S)-2-[ethyl(trifluoroacetyl)amino]propyl]-  
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

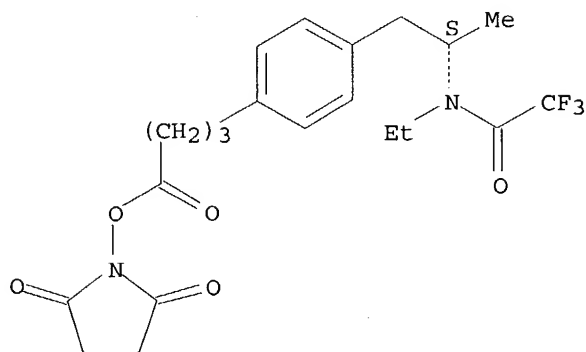


RN 590346-19-3 HCAPLUS

CN Acetamide, N-[(1S)-2-[4-[4-[(2,5-dioxo-1-pyrrolidinyl)oxyl]-4-oxobutyl]phenyl]-1-methylethyl]-N-ethyl-2,2,2-trifluoro- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

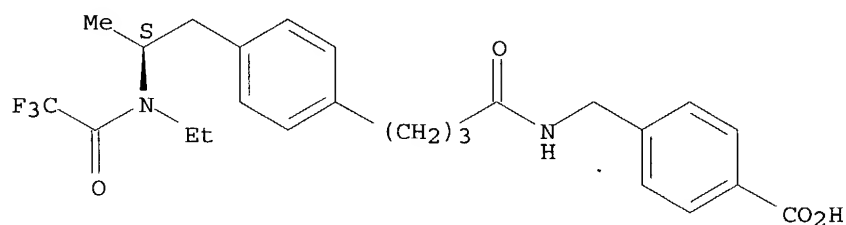
<c>Ceperley 10/087,612<r> July 27,2004



RN 590346-20-6 HCAPLUS

CN Benzoic acid, 4-[[[4-[4-[(2S)-2-[ethyl(trifluoroacetyl)amino]propyl]phenyl]-1-oxobutyl]amino]methyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 590346-21-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(amphetamine derivs., anti-derivative **antibodies**, reagent kits,  
**antibody** production, and derivative detection methods)

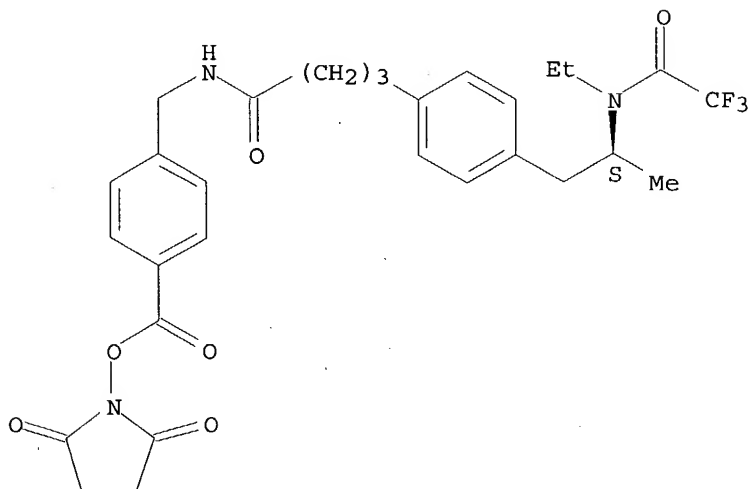
RN 590346-21-7 HCAPLUS

CN Benzenebutanamide, N-[[4-[[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]phenyl]methyl]-4-[(2S)-2-[ethyl(trifluoroacetyl)amino]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>

<c>Ceperley 10/087,612<r> July 27,2004



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER (5) OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:868427 HCAPLUS

DOCUMENT NUMBER: 136:6016

TITLE: Preparation of aminoalkyllactams as muscarinic receptor antagonists

INVENTOR(S): Dvorak, Charles Alois; Fisher, Lawrence Emerson; Green, Keena Lynn; Harris, Ralph New, III; Maag, Hans; Prince, Anthony; Repke, David Bruce; Stabler, Russell Stephen

PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.

SOURCE: PCT Int. Appl., 100 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001090081	A1	20011129	WO 2001-EP5584	20010516
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CU, CZ, DE, DK, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1289965	A1	20030312	EP 2001-980030	20010516
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
BR 2001011061	A	20030415	BR 2001-11061	20010516
JP 2003534330	T2	20031118	JP 2001-586270	20010516
NZ 522411	A	20040528	NZ 2001-522411	20010516
US 2002004501	A1	20020110	US 2001-862286	20010522

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>

<c>Ceperley 10/087,612<r> July 27,2004

US 6667301	B2	20031223		
US 2003109524	A1	20030612	US 2002-289055	20021106
US 6645958	B2	20031111		
NO 2002005640	A	20030122	NO 2002-5640	20021122
US 2004034018	A1	20040219	US 2003-632734	20030801
US 2004087581	A1	20040506	US 2003-685124	20031014
PRIORITY APPLN. INFO.:			US 2000-207483P	P 20000525
			US 2001-267579P	P 20010209
			US 2001-267617P	P 20010209
			WO 2001-EP5584	W 20010516
			US 2001-862286	A3 20010522
			US 2001-862522	A3 20010522
			US 2002-289055	A3 20021106

OTHER SOURCE(S): MARPAT 136:6016

AB Preparation of aminoalkyllactams (I) (one of X, Y or Z = independently -S-, -O-, CH<sub>2</sub>- or >N-R<sub>6</sub>, the others are -CH<sub>2</sub>-; m = 0-3; n = 1-6; R<sub>4</sub> = alkyl; R<sub>5</sub> = alkyl, alkenyl, alkynyl or cycloalkyl; and R<sub>1</sub>, R<sub>2</sub>, and R<sub>3</sub> = H or specified substituents). Thus, I (R<sub>1</sub> = 4-MeO; R<sub>2</sub>, R<sub>3</sub> = H; R<sub>4</sub> = Me; R<sub>5</sub> = Et; n = 1; m = 0; X, Y, Z = CH<sub>2</sub>) (II) is prepared by reaction of (2-oxo-pyrrolidinyl)acetaldehyde with [2-(4-methoxyphenyl)-1-methylethyl]ethylamine and sodium triacetoxyborohydride in 1,2-dichloroethane. II shows pK<sub>i</sub> of 7.32, 6.95 and 5.36 in muscarinic (M<sub>2</sub>, M<sub>3</sub>, M<sub>5</sub>) inhibitory activity against hamster ovary cells. I are generally muscarinic M<sub>2</sub>/M<sub>3</sub> receptor antagonists and formulations are given for treating diseases associated with smooth muscle disorders.

IC ICM C07D241-08

ICS C07D223-10; C07D267-10; C07D243-08; C07D207-27; C07D211-76;  
C07D225-02; C07D265-10; C07D267-22; C07D279-06; C07D239-10;  
C07D243-04; C07D405-12; C07D401-12; C07D409-12; C07D409-06;  
C07D411-12; C07D417-12; C07D413-06; C07D405-06

CC 28-20 (Heterocyclic Compounds (More Than One Hetero Atom))  
Section cross-reference(s): 1, 63

IT 376579-63-4P 376579-65-6P 376579-67-8P 376579-69-0P 376579-71-4P  
376579-73-6P 376579-75-8P 376579-77-0P 376579-79-2P 376579-81-6P  
376579-83-8P 376579-85-0P 376579-87-2P 376579-89-4P 376579-91-8P  
376579-92-9P 376579-93-0P 376579-94-1P 376579-95-2P 376579-96-3P  
376579-97-4P 376579-99-6P 376580-01-7P 376580-02-8P 376580-03-9P  
376580-04-0P 376580-05-1P 376580-06-2P 376580-07-3P 376580-08-4P  
376580-09-5P 376580-10-8P 376580-11-9P 376580-12-0P 376580-13-1P  
376580-14-2P 376580-15-3P 376580-16-4P 376580-17-5P 376580-18-6P  
376580-19-7P 376580-20-0P **376580-21-1P** 376580-22-2P  
376580-23-3P 376580-24-4P 376580-25-5P 376580-26-6P 376580-27-7P  
376580-28-8P 376580-29-9P 376580-30-2P 376580-31-3P 376580-32-4P  
376580-33-5P 376580-35-7P 376580-37-9P 376580-39-1P 376580-41-5P  
376580-43-7P 376580-45-9P 376580-47-1P 376580-49-3P 376580-51-7P  
376580-53-9P 376580-55-1P 376580-57-3P 376580-59-5P 376580-61-9P  
376580-63-1P 376580-65-3P 376580-66-4P 376580-67-5P 376580-68-6P  
376580-69-7P 376580-70-0P 376580-71-1P 376580-72-2P 376580-73-3P  
376580-74-4P 376580-75-5P 376580-76-6P 376580-77-7P 376580-78-8P  
376580-79-9P 376580-80-2P 376580-81-3P 376580-82-4P 376580-83-5P  
376580-84-6P 376580-85-7P 376580-86-8P 376580-87-9P 376580-88-0P  
376580-89-1P 376580-90-4P 376580-91-5P 376580-92-6P 376580-93-7P  
376580-95-9P 376591-75-2P 376591-80-9P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)

(preparation of aminoalkyllactams as muscarinic receptor antagonists)

IT **376580-21-1P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>

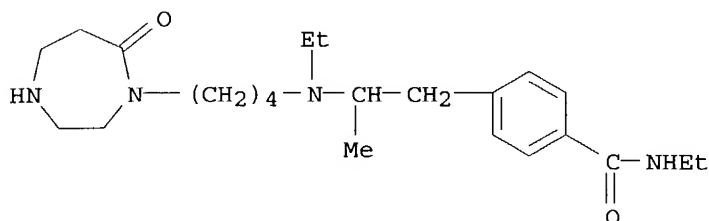
<c>Ceperley 10/087,612<r> July 27,2004

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of aminoalkyllactams as muscarinic receptor antagonists)

RN 376580-21-1 HCAPLUS

CN Benzamide, N-ethyl-4-[2-[ethyl[4-(hexahydro-7-oxo-1H-1,4-diazepin-1-yl)butyl]amino]propyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER (6) OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:263172 HCAPLUS

DOCUMENT NUMBER: 126:305340

TITLE: Study in amines and ammonium compounds. CCXXVI. Stevens rearrangement of bis-ammonium salts containing a common p-xylylenyl group

AUTHOR(S): Karapetyan, V. E.; Kocharyan, S. T.; Babayan, A. T.

CORPORATE SOURCE: Inst. Org. Khim., Nats. Akad. Nauk Respub. Arm., Yerevan, 375091, Armenia

SOURCE: Zhurnal Organicheskoi Khimii (1996), 32(8), 1190-1193  
CODEN: ZORKAE; ISSN: 0514-7492

PUBLISHER: Nauka

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB Treatment of 1,4-(R<sub>1</sub>COCH<sub>2</sub>N+R<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>C<sub>6</sub>H<sub>4</sub>.2Br- [R<sub>1</sub> = R<sub>2</sub> = Me; R<sub>1</sub> = Me, R<sub>2</sub> = (CH<sub>2</sub>)<sub>5</sub>; R<sub>1</sub> = Ph, R<sub>2</sub> = Me; R<sub>1</sub> = Ph, R<sub>2</sub> = Et; R<sub>1</sub> = Ph, R<sub>2</sub> = (CH<sub>2</sub>)<sub>5</sub> (1-5, resp.)] in with KOH afforded Stevens rearrangement product 1,4-[R<sub>1</sub>COCH(NR<sub>2</sub>)CH<sub>2</sub>]<sub>2</sub>C<sub>6</sub>H<sub>4</sub> + cleavage product 1,4-(R<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>C<sub>6</sub>H<sub>4</sub>. Water solvent favored rearrangement for 3-5, whereas rearrangement of 2 failed in water but succeeded in benzene.

CC 22-6 (Physical Organic Chemistry)

IT 19851-38-8P 36997-13-4P 40828-00-0P 189205-87-6P 189205-88-7P  
189205-89-8P 189205-90-1P 189205-91-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(Stevens rearrangement of bis-ammonium salts containing a common p-xylylenyl group)

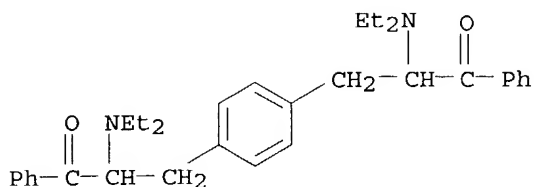
IT 189205-90-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(Stevens rearrangement of bis-ammonium salts containing a common p-xylylenyl group)

RN 189205-90-1 HCAPLUS

CN 1-Propanone, 3,3'-(1,4-phenylene)bis[2-(diethylamino)-1-phenyl- (9CI) (CA INDEX NAME)

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>



L6 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:998406 HCAPLUS

DOCUMENT NUMBER: 124:203098

TITLE: Preparation of peptide factor Xa inhibitors as antithrombotics.

INVENTOR(S): Al-Obeidi, Fahad; Lebl, Michal; Ostrem, James A.; Safar, Pavel; Stierandova, Alena; Strop, Peter; Walser, Armin

PATENT ASSIGNEE(S): Selectide Corp., USA

SOURCE: PCT Int. Appl., 107 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9529189	A1	19951102	WO 1995-US5268	19950425
W:	AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MW, MX, NO, NZ, PL, RO, RU, SI, SK, TJ, TT, UA, UZ, VN			
RW:	KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
CA 2186497	AA	19951102	CA 1995-2186497	19950425
AU 9523683	A1	19951116	AU 1995-23683	19950425
AU 707653	B2	19990715		
ZA 9503361	A	19960112	ZA 1995-3361	19950425
EP 758341	A1	19970219	EP 1995-917736	19950425
EP 758341	B1	20040324		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE			
CN 1147261	A	19970409	CN 1995-192811	19950425
HU 76346	A2	19970828	HU 1996-2954	19950425
JP 10503477	T2	19980331	JP 1995-527853	19950425
RU 2152954	C1	20000720	RU 1996-122647	19950425
EE 3973	B1	20030217	EE 1996-146	19950425
EP 1384725	A2	20040128	EP 2003-21617	19950425
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE			
IL 113505	A1	19991231	IL 1995-113505	19950426
TW 409129	B	20001021	TW 1995-84104681	19950511
FI 9604317	A	19961025	FI 1996-4317	19961025
NO 9604553	A	19961227	NO 1996-4553	19961025
LT 4218	B	19970925	LT 1996-151	19961025
LV 11740	B	19971220	LV 1996-410	19961115
PRIORITY APPLN. INFO.:			US 1994-233054	A 19940426
			EP 1995-917736	A3 19950425
			WO 1995-US5268	W 19950425

<c>Ceperley 10/087,612<r> July 27,2004

OTHER SOURCE(S): - MARPAT 124:203098

AB A1-A2-(A3)m-B [m = 0, 1; A1 = R1-R2-R3; A2 = R4-R5-R6; A3 = R7-R8-R9; R1 = (substituted) 1-20 amino acid residues, R11CO, R11R12X; X = N, CH, NCO; R11, R12 = H, alkyl, acyl, aryl, aralkyl, protecting group; R2 = CR99R100; R99, R100 = H, (substituted) alkyl, aralkyl, heteroaralkyl, heteroaryl; R3 = CO, CH2, CHR99CO, etc.; R4 = CH2, imino; R5 = CR201R202; R201, R202 = H, (substituted) alkyl, aryl, aralkyl; R6 = CO, CH2, CHR99CO; R7 = (substituted) R4; R8 = CR210R211; R210, R211 = H, (substituted) alkyl, alkylaryl, heterocyclyl; R9 = CO, CH2, CHR99CO; B = (substituted) 1-20 amino acid residues, amino, OH, alkoxy, acyloxy, etc.; with provisos], were prepared Thus, Ac-Tyr-Chg-Arg-NH2 (Chg = cyclohexylglycyl) inhibited coagulation in human plasma with EC50 = 2.5  $\mu$ M.

IC ICM C07K005-08

ICS C07K005-10; C07K007-02; C07K007-04; A61K038-06; A61K038-08

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 1

IT 174131-80-7P 174131-81-8P 174131-82-9P 174131-83-0P 174131-84-1P  
174131-85-2P 174131-86-3P 174131-87-4P 174131-88-5P 174131-89-6P  
174131-90-9P 174131-91-0P 174131-92-1P 174131-93-2P 174131-94-3P  
174131-95-4P 174131-96-5P 174131-97-6P 174131-98-7P 174131-99-8P  
174132-00-4P 174132-01-5P 174132-02-6P 174132-03-7P 174132-04-8P  
174132-05-9P 174132-06-0P 174132-07-1P 174132-08-2P 174132-09-3P  
174132-10-6P 174132-11-7P 174132-12-8P 174132-13-9P 174132-14-0P  
174132-15-1P 174132-16-2P 174132-17-3P 174132-18-4P 174132-19-5P  
174132-20-8P 174132-21-9P 174132-22-0P 174132-23-1P 174132-24-2P  
174132-25-3P 174132-26-4P 174132-27-5P 174132-28-6P 174132-29-7P  
174132-75-3P 174132-76-4P 174132-77-5P 174132-78-6P 174132-79-7P  
174132-80-0P 174132-81-1P 174132-82-2P 174132-83-3P 174132-84-4P  
174132-85-5P 174132-86-6P 174132-87-7P 174132-88-8P 174132-89-9P  
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174132-99-1P 174133-00-7P 174133-01-8P 174133-02-9P 174133-03-0P  
174133-04-1P 174133-05-2P 174133-06-3P 174133-07-4P 174133-08-5P  
174133-09-6P 174133-10-9P 174133-11-0P 174133-12-1P 174133-13-2P  
174133-14-3P 174133-15-4P 174133-16-5P 174289-72-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of peptide factor Xa inhibitors as antithrombotics)

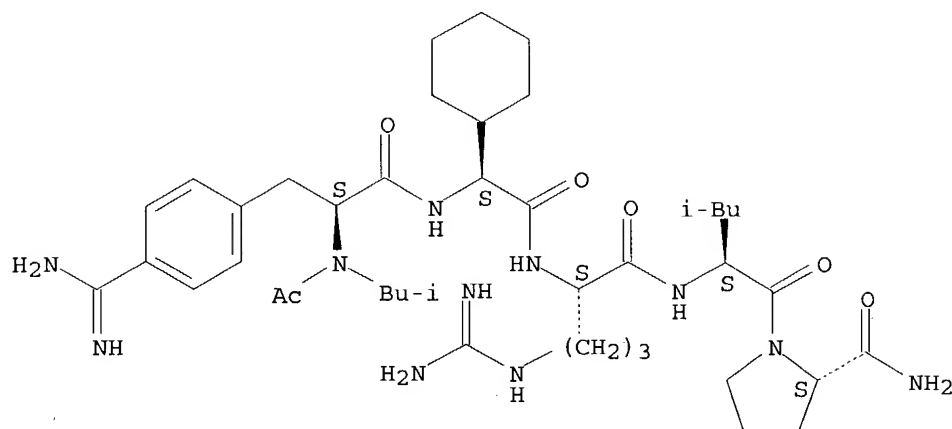
IT 174132-93-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of peptide factor Xa inhibitors as antithrombotics)

RN 174132-93-5 HCAPLUS

CN L-Prolinamide, N-acetyl-4-(aminoiminomethyl)-N-(2-methylpropyl)-L-phenylalanyl-L-2-cyclohexylglycyl-L-arginyl-L-leucyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1988:438244 HCAPLUS  
 DOCUMENT NUMBER: 109:38244  
 TITLE: Preparation and formulation of N-  
 [(arylsulfonyl)aminoacyl]-p-amidinophenylalaninamides  
 as drugs  
 INVENTOR(S): Bernat, Andre; Delebassee, Denis; Frehel, Daniel;  
 Maffrand, Jean Pierre; Vallee, Eric  
 PATENT ASSIGNEE(S): SANOFI, Fr.  
 SOURCE: Fr. Demande, 32 pp.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2593812	A1	19870807	FR 1986-1398	19860124
FR 2593812	B1	19880826		
EP 236163	A1	19870909	EP 1987-400149	19870122
EP 236163	B1	19901003		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 57179	E	19901015	AT 1987-400149	19870122
CA 1307076	A1	19920901	CA 1987-527938	19870122
US 4977168	A	19901211	US 1987-6152	19870123
JP 62228050	A2	19871006	JP 1987-15046	19870124
PRIORITY APPLN. INFO.:			FR 1986-1398	19860124
			FR 1986-1400	19860124
			EP 1987-400149	19870122

OTHER SOURCE(S): CASREACT 109:38244  
 AB The title compds. [I; R1 = H, alkyl, HOCH2, etc.; R2 = alkyl, alkenyl, alkynyl, etc.; R3, R4 = alkyl, alkenyl, alkynyl; NR3R4 may form a ring; R5 = C(:NH)NH2] (II) and their pharmaceutically acceptable salts, useful as drugs, are prepared I (Ar = 2-naphthyl, R1 = H, R2 = Me, NR3R4 = piperidino, R5 = cyano) (preparation shown) was treated with HCl-saturated MeOH at 0° for 20 h to give I [Ar = 2-naphthyl, R1 = H, R2 = Me, NR3R4 = piperidino, R5 = C(:NH)OMe], which was refluxed with methanolic ammonia to at 0-5° for 3 h to give, after treatment with HCl, II [Ar =



<c>Ceperley 10/087,612<r> July 27,2004

2-naphthyl, R1 = H, R2 = Me, NR3R4 = piperidino].HCl (III). III increased the coagulation time of citrated plasma in the presence of thrombin by 1529% vs. 233% for heparin. Sugar-coated tablets were prepared containing 0.050

g III, lactose, polyvinylpyrrolidone, Mg stearate, lac gum, talc, CaCO<sub>3</sub>, silica, titanium oxide, arabic gum, white wax, and carnauba wax.

IC ICM C07D295-10

ICS C07D211-16; C07D401-12; A61K031-47; A61K031-445

ICI C07D401-12, C07D215-36, C07D211-16

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 1, 63

IT 115132-74-6P 115241-84-4P 115242-07-4P **115242-08-5P**

115242-09-6P **115242-10-9P** **115242-11-0P** 115242-12-1P

115242-14-3P **115242-15-4P** 115242-16-5P 115242-17-6P

115242-18-7P 115242-19-8P 115242-20-1P 115242-21-2P 115244-33-2P

**115259-37-5P**

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, as anticoagulant)

IT **115242-08-5P** **115242-10-9P** **115242-11-0P**

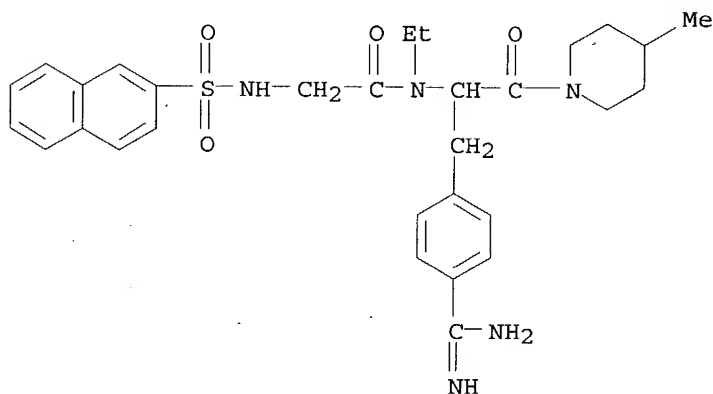
**115242-15-4P** **115259-37-5P**

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, as anticoagulant)

RN 115242-08-5 HCAPLUS

CN Acetamide, N-[1-[[4-(aminoiminomethyl)phenyl]methyl]-2-(4-methyl-1-piperidinyl)-2-oxoethyl]-N-ethyl-2-[(2-naphthalenylsulfonyl)amino]-, monohydrochloride (9CI) (CA INDEX NAME)

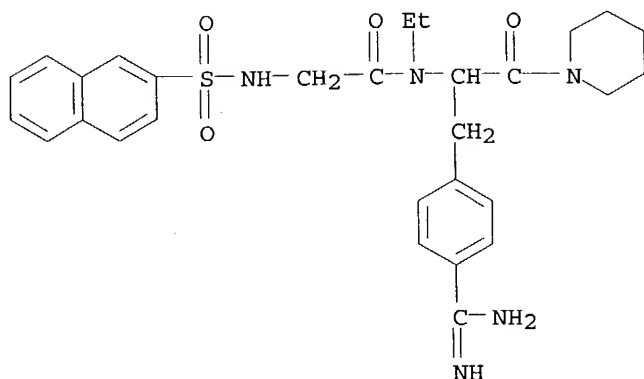


● HCl

RN 115242-10-9 HCAPLUS

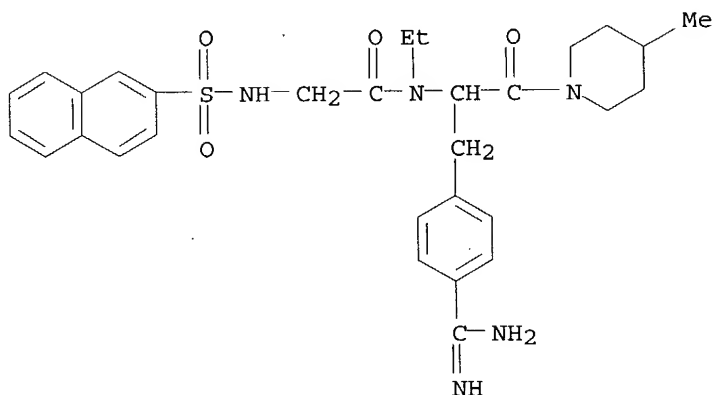
CN Acetamide, N-[1-[[4-(aminoiminomethyl)phenyl]methyl]-2-oxo-2-(1-piperidinyl)ethyl]-N-ethyl-2-[(2-naphthalenylsulfonyl)amino]- (9CI) (CA INDEX NAME)

<c>Ceperley 10/087,612<r> July 27,2004



RN 115242-11-0 HCAPLUS

CN Acetamide, N-[1-[[4-(aminoiminomethyl)phenyl]methyl]-2-(4-methyl-1-piperidinyl)-2-oxoethyl]-N-ethyl-2-[(2-naphthalenylsulfonyl)amino]- (9CI)  
(CA INDEX NAME)

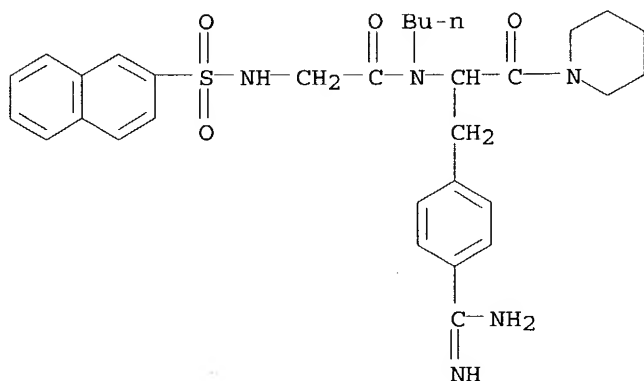


RN 115242-15-4 HCAPLUS

CN Acetamide, N-[1-[[4-(aminoiminomethyl)phenyl]methyl]-2-oxo-2-(1-piperidinyl)ethyl]-N-butyl-2-[(2-naphthalenylsulfonyl)amino]-, monohydrochloride (9CI) (CA INDEX NAME)

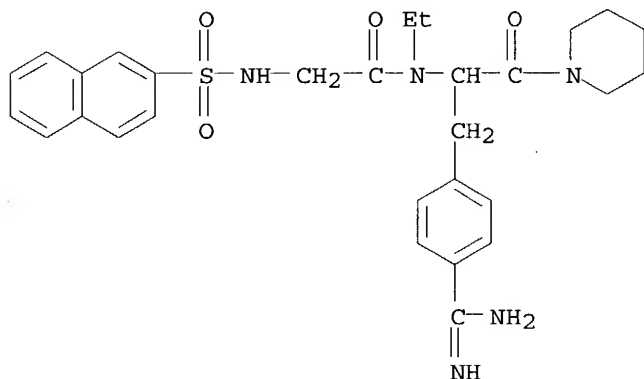
<c>Searched by Paul Schulwitz 571-272-2527 <r><p>

<c>Ceperley 10/087,612<r> July 27,2004



● HCl

RN 115259-37-5 HCAPLUS  
CN Acetamide, N-[1-[[4-(aminoiminomethyl)phenyl]methyl]-2-oxo-2-(1-piperidinylethyl]-N-ethyl-2-[(2-naphthalenylsulfonyl)amino]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L6 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1970:100184 HCAPLUS  
DOCUMENT NUMBER: 72:100184  
TITLE: New p-bis(2-aminopropyl)benzene derivatives  
AUTHOR(S): Bobranski, Boguslaw; Konieczny, Mieczyslaw  
CORPORATE SOURCE: Inst. Immunol. Exp. Ther., Polska Acad. Nauk, Wroclaw, Pol.  
SOURCE: Archivum Immunologiae et Therapiae Experimentalis (1970), 18(1), 143-9  
CODEN: AITEAT; ISSN: 0004-069X  
DOCUMENT TYPE: Journal  
LANGUAGE: English

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>

<c>Ceperley 10/087,612<r> July 27,2004

AB p-[MeCH(NHR1)CH2]2C6H4 (I) (R1 = H, Me, CH2CH2OH, iso-Pr, or CH2Ph), having hypotensive activity, were prepared by hydrogenating p-R22C6H4 (II) (R2 = CH2Ac) (III) in the presence of Pd/C catalyst and NH3 or the corresponding amine. Thus, a mixture containing dry benzene 125, paraformaldehyde 125, anhydrous ZnCl2 50, and anhydrous H3PO4 50 g was treated dropwise during 2.5 hr with 250 g SOCl2 and stirred 2 hr at 45° to give, after standing overnight, 70% II (R2 = CH2Cl), which was hydrolyzed with K2CO3. II (R2 = CH2OH) was oxidized to 83% II (R2 = CHO) (IV) by HNO3. Boiling 13.4 g IV, 22.5 g EtNO2, and 1 ml amylamine 8 hr gave 74% II [R2 = CH:C(Me)NO2] (V), m. 120°. A mixture of 1.24 g V, 5 ml H2O, 5 ml EtOH, 10 mg FeCl3, and 4 g Fe powder was heated to 90° and 6.5 ml 10% HCl added during 4 hr to give 0.67 g III. Reduction of V with LiAlH4 in Et2O and tetrahydrofuran gave only 20% I (R1 = H). III (1.9 g) dissolved in 10 ml absolute EtOH and 0.02 mole of the appropriate amine was hydrogenated with 0.4 g 5% Pd/C catalyst to give the following I (R1, reaction temperature, H pressure in atmospheric, % yield, and m.p. given): H, 25°, 30, 70, 350°; Me, 35°, 50, 38, 288°; Me, 35°, 135, 17, 220°; CH2CH2OH, 35°, 100, 38, 262°; CH2CH2OH, 35°, 100, 15, 180°; iso-Pr, 40°, 130, 37, 329°; iso-Pr, 40°, 130, 57, 293°; CH2Ph, 25°, 80, 82, 301°. The latter compound has antihistaminic and antibradykinin activity (J. Giedanowski, et al., 1969).

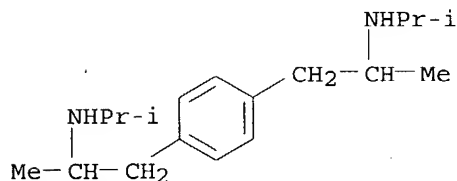
CC 25 (Noncondensed Aromatic Compounds)

IT 22593-80-2 22631-86-3 **24983-74-2**  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(stereoisomers)

IT **24983-74-2**  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(stereoisomers)

RN 24983-74-2 HCAPLUS

CN p-Benzenebis(ethylamine), N,N'-diisopropyl- $\alpha,\alpha'$ -dimethyl-, dihydrochloride (8CI) (CA INDEX NAME)



● 2 HCl

L6 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1969:479460 HCAPLUS

DOCUMENT NUMBER: 71:79460

TITLE: Pharmacologic properties of substituted derivatives of bis-(aminopropyl)-benzene

AUTHOR(S): Gieldanowski, Jerzy; Pelczarska, Alicja; Patkowski, Janusz

CORPORATE SOURCE: Dep. Immunopharmacol., Polska Akad. Nauk, Wroclaw, Pol.

SOURCE: Archivum Immunologiae et Therapiae Experimentalis

<c>Searched by Paul Schulwitz 571-272-2527 <r><p>

<c>Ceperley 10/087,612<r> July 27,2004

(1969), 17(4), 536-46  
CODEN: AITEAT; ISSN: 0004-069X

DOCUMENT TYPE: Journal  
LANGUAGE: English

AB p-Bis-(2-methylaminopropyl)-benzene-2HCl,  $\alpha$ -p-bis-(2-isopropylaminopropyl)benzene-2HCl, b - p - bis - (2-isopropylaminopropyl)benzene-2HCl, p - bis - (2-ethanolaminopropyl)benzene-2HCl, and p-bis-(2-benzylaminopropyl)benzene-2HCl were 50% toxic to mice at 150, 200, 150, 50, and 150 mg./kg. i.p. and 13, 30, 24, 25, and 45 mg./kg. i.v. None of the compds. produced local irritation when injected into the conjunctival sac or s.c. on the auricula in rabbits. I.v. administration of these compds. to rabbits and cats reduced arterial blood pressure due to impaired conduction in the myocardium and dilation of peripheral blood vessels. Hypotensive doses depressed respiration. The compds. had no effect on bronchial, intestinal, or gastric muscles. p-Bis-(2-benzylaminopropyl)benzene-2HCl antagonized the effects of histamine and bradykinin on rat skin and bradykinin on isolated rat uterus.

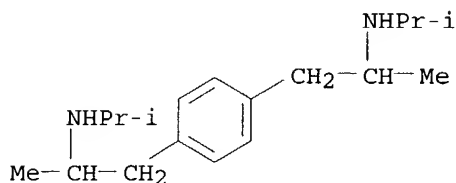
CC 15 (Pharmacodynamics)

IT 24983-74-2  
RL: BIOL (Biological study)  
(pharmacology of stereoisomers)

IT 24983-74-2  
RL: BIOL (Biological study)  
(pharmacology of stereoisomers)

RN 24983-74-2 HCAPLUS

CN p-Benzenebis(ethylamine), N,N'-diisopropyl- $\alpha,\alpha'$ -dimethyl-, dihydrochloride (8CI) (CA INDEX NAME)



●2 HCl



=> dup rem l31 l34 l37 l38

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FILE 'EMBASE' ENTERED AT 16:03:56 ON 27 JUL 2004

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FILE 'WPIX' ENTERED AT 16:03:56 ON 27 JUL 2004

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PROCESSING COMPLETED FOR L31

PROCESSING COMPLETED FOR L34

PROCESSING COMPLETED FOR L37

PROCESSING COMPLETED FOR L38

L39 51 DUP REM L31 L34 L37 L38 (21 DUPLICATES REMOVED)

ANSWERS '1-17' FROM FILE MEDLINE

ANSWERS '18-42' FROM FILE EMBASE

ANSWERS '43-49' FROM FILE BIOSIS

ANSWERS '50-51' FROM FILE WPIX

=> d que l39

L7	2	SEA FILE=REGISTRY	ABB=ON	PLU=ON	MDEA/CN
L14	1	SEA FILE=REGISTRY	ABB=ON	PLU=ON	3,4-METHYLENEDIOXYAMPHETAMINE /CN
L15	1	SEA FILE=REGISTRY	ABB=ON	PLU=ON	ECSTASY/CN
L16	3	SEA FILE=REGISTRY	ABB=ON	PLU=ON	BDB/CN
L17	1	SEA FILE=REGISTRY	ABB=ON	PLU=ON	L16 AND "3,4"
L18	1	SEA FILE=REGISTRY	ABB=ON	PLU=ON	MBDB/CN
L19	2	SEA FILE=REGISTRY	ABB=ON	PLU=ON	MDPA/CN
L22	1	SEA FILE=REGISTRY	ABB=ON	PLU=ON	L19 AND OCOC2/ESS
L23	7	SEA FILE=REGISTRY	ABB=ON	PLU=ON	L14 OR L15 OR L7 OR L18 OR L17 OR L22
L29	14	SEA FILE=MEDLINE	ABB=ON	PLU=ON	L23 AND ?ANTIBOD?
L30	3	SEA FILE=MEDLINE	ABB=ON	PLU=ON	(MDEA OR EVE) (5A)?ANTIBOD?
L31	17	SEA FILE=MEDLINE	ABB=ON	PLU=ON	L30 OR L29
L32	5	SEA FILE=EMBASE	ABB=ON	PLU=ON	(MDEA OR EVE) (5A)?ANTIBOD?
L33	29	SEA FILE=EMBASE	ABB=ON	PLU=ON	L23 AND ?ANTIBOD?
L34	34	SEA FILE=EMBASE	ABB=ON	PLU=ON	L32 OR L33
L35	13	SEA FILE=BIOSIS	ABB=ON	PLU=ON	L23 AND ?ANTIBOD?
L36	6	SEA FILE=BIOSIS	ABB=ON	PLU=ON	(MDEA OR EVE) (5A)?ANTIBOD?
L37	19	SEA FILE=BIOSIS	ABB=ON	PLU=ON	L35 OR L36
L38	2	SEA FILE=WPIX	ABB=ON	PLU=ON	(MDEA OR EVE) (5A)?ANTIBOD?
L39	51	DUP REM	L31 L34 L37 L38	(21 DUPLICATES REMOVED)	

=> d l39 bib ab hitind 1-51

L39 ANSWER (1) OF 51 MEDLINE on STN DUPLICATE 1  
 AN 2003154929 MEDLINE  
 DN PubMed ID: 12672000  
 TI Altered gene expression in frontal cortex and midbrain of  
 3,4-methylenedioxymethamphetamine (MDMA) treated mice: differential  
 regulation of GABA transporter subtypes.  
 AU Peng Weiping; Simantov Rabi  
 CS Department of Molecular Genetics, Weizmann Institute of Science, Rehovot,  
 Israel.  
 SO Journal of neuroscience research, (2003 Apr 15) 72 (2) 250-8.

*Considered*  
*09/14/04*  
*MEC*

Journal code: 7600111. ISSN: 0360-4012.

CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 200306  
ED Entered STN: 20030403  
Last Updated on STN: 20030613  
Entered Medline: 20030612

AB Changes in gene expression were examined in the brain of mice treated with a drug of abuse, 3,4-methylenedioxymethamphetamine (MDMA, also called Ecstasy). Frontal cortex and midbrain mRNA, analyzed by differential display polymerase chain reaction (DD-PCR) method, showed an altered expression of several cDNAs, 11 of which were isolated, cloned and sequenced. The sequence of one MDMA-induced mRNA corresponds (99.3%) to the mouse gamma-amino butyric acid (GABA) transporter 1 (mGAT1). The established involvement of GABA neurotransmission in the activity of several abused drugs prompted us to focus herein on MDMA effect on the GABA transporter gene family. Semi-quantitative PCR analysis with primers selective to the reported mGAT1 sequence confirmed that MDMA treatment increased mGAT1 expression. Time-course study of the expression of the three GABA transporter subtypes showed that MDMA induced a differential temporal activation of mGAT1 and mGAT4, but had no effect on mGAT2. Quantitative real-time PCR further proved the increased expression of mGAT1 and mGAT4 upon MDMA treatment. Western immunoblotting with anti-GAT1 **antibodies** showed that MDMA also increased GAT1 protein levels, suggesting that neurotransmission of GABA was altered. MDMA effect was also verified in serotonin transporter knockout (-/-) mice that are insensitive behaviorally to MDMA; the drug did not increase GAT1 protein level in these mutants. In mice, tiagabine and NO-711, inhibitors of GABA transporters, restrained MDMA-induced acute toxicity and death. These results should facilitate novel approaches to prevent deleterious effects, including fatality, induced by MDMA and similar abused psychostimulants.

CT Copyright 2003 Wiley-Liss, Inc.  
Check Tags: Male; Support, Non-U.S. Gov't  
Animals  
Carrier Proteins: CL, classification  
\*Carrier Proteins: DE, drug effects  
Carrier Proteins: GE, genetics  
Cloning, Molecular  
\*Frontal Lobe: DE, drug effects  
\*Gene Expression Regulation: DE, drug effects  
Membrane Proteins: CL, classification  
\*Membrane Proteins: DE, drug effects  
Membrane Proteins: GE, genetics  
\*Mesencephalon: DE, drug effects  
Mice  
Mice, Knockout: ME, metabolism  
\*N-Methyl-3,4-methylenedioxyamphetamine: PD, pharmacology  
N-Methyl-3,4-methylenedioxyamphetamine: TO, toxicity  
Nerve Tissue Proteins: DE, drug effects  
Nipecotic Acids: PD, pharmacology  
Oximes: PD, pharmacology  
Protein Isoforms: DE, drug effects  
RNA, Messenger: DE, drug effects  
Reverse Transcriptase Polymerase Chain Reaction  
Serotonin: GE, genetics  
Serotonin: ME, metabolism



gamma-Aminobutyric Acid: DE, drug effects  
RN 115103-54-3 (tiagabine); 145645-62-1 (NNC 711); 42542-10-9  
(N-Methyl-3,4-methylenedioxymphetamine); 50-67-9 (Serotonin);  
56-12-2 (gamma-Aminobutyric Acid)  
CN 0 (Carrier Proteins); 0 (GABA modulin); 0 (Membrane Proteins); 0 (Nerve  
Tissue Proteins); 0 (Nipecotic Acids); 0 (Oximes); 0 (Protein Isoforms); 0  
(RNA, Messenger)

L39 ANSWER 2 OF 51 MEDLINE on STN DUPLICATE 2  
AN 2003080026 MEDLINE  
DN PubMed ID: 12592588  
TI Immunohistochemical demonstration of the amphetamine derivatives  
3,4-methylenedioxymethamphetamine (MDMA) and 3,4-methylenedioxymphetamine  
(MDA) in human post-mortem brain tissues and the pituitary gland.  
AU De Letter Els A; Espeel Marc F A; Craeymeersch Marijke E C; Lambert Willy  
E; Clauwaert Karine M; Dams Riet; Mortier Kjell A; Piette Michel H A  
CS Ghent University, Department of Forensic Medicine, J. Kluyskensstraat 29,  
9000 Ghent, Belgium.  
SO International journal of legal medicine, (2003 Feb) 117 (1) 2-9.  
Journal code: 9101456. ISSN: 0937-9827.  
CY Germany: Germany, Federal Republic of  
DT (CASE REPORTS)  
Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 200307  
ED Entered STN: 20030221  
Last Updated on STN: 20030731  
Entered Medline: 20030730  
AB Abuse of amphetamine derivatives such as 3,4-methylenedioxymethamphetamine  
(MDMA) and 3,4-methylenedioxymphetamine (MDA) is an important issue in  
current forensic practice and fatalities are not infrequent. Therefore,  
we investigated an immunohistochemical method to detect the amphetamine  
analogues MDMA and MDA in human tissues. For the staining procedure, the  
Catalysed Signal Amplification (CSA) method using peroxidase (HRP)  
provided by Dako and specific monoclonal antibodies were used.  
Appropriate controls for validation of the technique were included. The  
distribution of these designer drugs was studied in various brain regions  
including the four lobes, the basal ganglia, hypothalamus, hippocampus,  
corpus callosum, medulla oblongata, pons, cerebellar vermis and,  
additionally, in the pituitary gland. A distinct positive reaction was  
observed in all cortical brain regions and the neurons of the basal  
ganglia, the hypothalamus, the hippocampus and the cerebellar vermis but  
in the brainstem, relatively weak staining of neurons was seen. The  
reaction presented as a mainly diffuse cytoplasmic staining of the  
perikaryon of the neurons, and often axons and dendrites were also  
visualised. In addition, the immunoreactivity was present in the white  
matter. In the pituitary gland, however, distinct immunopositive cells  
were observed, with a prominent heterogeneity. The immunohistochemical  
findings were supported by the toxicological data. This immunostaining  
technique can be used as evidence of intake or even poisoning with MDMA  
and/or MDA and can be an interesting tool in forensic practice when the  
usual samples for toxicological analysis are not available. Furthermore,  
this method can be used to investigate the distribution of these  
substances in the human body.  
CT Check Tags: Human; Male  
3,4-Methylenedioxymphetamine: BL, blood  
\*3,4-Methylenedioxymphetamine: ME, metabolism  
3,4-Methylenedioxymphetamine: PO, poisoning

Adult

\*Brain: ME, metabolism

Chromatography, High Pressure Liquid

Fatal Outcome

Hallucinogens: BL, blood

Hallucinogens: CH, chemistry

\*Hallucinogens: ME, metabolism

Hallucinogens: PO, poisoning

Immunohistochemistry

Mass Fragmentography

N-Methyl-3,4-methylenedioxyamphetamine: BL, blood

\*N-Methyl-3,4-methylenedioxyamphetamine: ME, metabolism

N-Methyl-3,4-methylenedioxyamphetamine: PO, poisoning

\*Pituitary Gland: ME, metabolism

\*Substance Abuse Detection: MT, methods

Tissue Distribution

RN 42542-10-9 (N-Methyl-3,4-methylenedioxyamphetamine);

4764-17-4 (3,4-Methylenedioxyamphetamine)

CN 0 (Hallucinogens)

L39 ANSWER (3) OF 51 MEDLINE on STN

DUPLICATE 3

AN 2002718201 MEDLINE

DN PubMed ID: 12480182

TI Synaptotagmin I and IV are differentially regulated in the brain by the recreational drug 3,4-methylenedioxymethamphetamine (MDMA).

AU Peng Weiping; Premkumar Arumugam; Mossner Rainald; Fukuda Mitsunori; Lesch K Peter; Simantov Rabi

CS Department of Molecular Genetics, Weizmann Institute of Science, Rehovot 76100, Israel.

SO Brain research. Molecular brain research, (2002 Dec) 108 (1-2) 94-101. Journal code: 8908640. ISSN: 0169-328X.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 200306

ED Entered STN: 20021218

Last Updated on STN: 20030617

Entered Medline: 20030616

AB 3,4-Methylenedioxymethamphetamine (MDMA or Ecstasy) is a widely abused drug. In brains of mice exposed to MDMA, we recently detected altered expression of several cDNAs and genes by using the differential display polymerase chain reaction (PCR) method. Expression of one such cDNA, which exhibited 98% sequence homology with the synaptic vesicle protein synaptotagmin IV, decreased 2 h after MDMA treatment. Herein, the effect of MDMA on expression of both synaptotagmin I and IV was studied in detail, since the two proteins are functionally interrelated. PCR analyses (semi-quantitative and real-time) confirmed that upon treatment with MDMA, expression of synaptotagmin IV decreased both in the midbrain and frontal cortex of mice. Decreases in the protein levels of synaptotagmin IV were confirmed by Western immunoblotting with anti-synaptotagmin IV **antibodies**. In contrast, the same exposure to MDMA increased expression of synaptotagmin I in the midbrain, a region rich in serotonergic neurons, but not in the frontal cortex. This differential expression was confirmed at the protein level with anti-synaptotagmin I **antibodies**. MDMA did not induce down- or up-regulation of synaptotagmin IV and I, respectively, in serotonin transporter knockout mice (-/-) that are not sensitive to MDMA. Therefore, psychoactive drugs, such as MDMA, appear to modulate expression

of synaptic vesicle proteins, and possibly vesicle trafficking, in the brain.

CT Check Tags: Human; Male; Support, Non-U.S. Gov't  
Animals

\*Brain: DE, drug effects

\*Brain: ME, metabolism

Carrier Proteins: GE, genetics

Carrier Proteins: ME, metabolism

Down-Regulation: PH, physiology

Hallucinogens

Membrane Glycoproteins: GE, genetics

\*Membrane Glycoproteins: ME, metabolism

Mice

Mice, Inbred C57BL

Mice, Knockout

\*N-Methyl-3,4-methylenedioxymphetamine: PD, pharmacology

Nerve Tissue Proteins: GE, genetics

\*Nerve Tissue Proteins: ME, metabolism

RNA, Messenger: ME, metabolism

\*Serotonin Agents: PD, pharmacology

RN 134193-27-4 (synaptotagmin); 42542-10-9 (N-Methyl-3,4-methylenedioxymphetamine)

CN 0 (Carrier Proteins); 0 (Hallucinogens); 0 (Membrane Glycoproteins); 0 (Nerve Tissue Proteins); 0 (RNA, Messenger); 0 (SLC6A4 protein, human); 0 (Serotonin Agents)

L39 ANSWER 4 OF 51 MEDLINE on STN DUPLICATE 5

AN 2001565533 MEDLINE

DN PubMed ID: 11672589

TI Methylenedioxymphetamine (MDMA; 'Ecstasy') suppresses antigen specific IgG2a and IFN-gamma production.

AU Connor T J; Connelly D B; Kelly J P

CS Department of Pharmacology, National University of Ireland, Galway, Ireland.. thomas.connor@nuigalway.ie

SO Immunology letters, (2001 Sep 3) 78 (2) 67-73.

Journal code: 7910006. ISSN: 0165-2478.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 200112

ED Entered STN: 20011024

Last Updated on STN: 20020122

Entered Medline: 20011207

AB Methylenedioxymphetamine (MDMA; "Ecstasy") is a widely abused amphetamine derivative. In the present study, we examined the effect of acute MDMA administration on an antigen specific immune response. Responsiveness to an in vivo challenge with the soluble protein antigen keyhole limpet haemocyanin (KLH) was examined in rats following MDMA administration (2.5, 5 or 10 mg/kg; i.p.). KLH-specific serum IgM concentrations were measured 7 days following challenge, and serum IgG concentrations were measured 14 days following the KLH challenge. In addition, antigen-specific IFN-gamma and IL-6 production was measured in KLH-stimulated splenocytes. MDMA did not alter the KLH-specific IgM response. In contrast, MDMA (5 and 10 mg/kg) provoked a significant suppression of KLH-specific IgG production. Thus, MDMA administration did not alter the initial generation of the antibody response but rather inhibited antibody class switching from IgM to IgG. Two pathways for the genetic switch from IgM to IgG production were

investigated. One pathway requires the Th(1) type cytokine IFN-gamma to stimulate IgM-secreting cells to switch to IgG(2a)-secreting cells. Another pathway requires the Th(2) type cytokines IL-4 and IL-6 to stimulate IgM-secreting cells to switch to IgG(1)-secreting cells. IgG(1) and IgG(2a) levels were measured to determine if these two pathways were differentially affected. The results indicate that only IgG(2a) levels were decreased following MDMA administration. Furthermore, this decrease in IgG(2a) was accompanied by decreased KLH-specific IFN-gamma production 14 days post KLH administration. In conclusion, these data indicate that MDMA alters the ability to switch from IgM to IgG(2a) production, possibly by reducing IFN-gamma. Potential health consequences for MDMA users are discussed.

CT Check Tags: Female; Support, Non-U.S. Gov't  
Animals

**\*Antibody Specificity: DE, drug effects**

\*Epitopes, T-Lymphocyte: IM, immunology

\*Hemocyanin: IM, immunology

\*Immunoglobulin G: BI, biosynthesis

Immunoglobulin G: BL, blood

Immunoglobulin M: BI, biosynthesis

Immunoglobulin M: BL, blood

Injections, Intraperitoneal

\*Interferon Type II: AI, antagonists & inhibitors

\*Interferon Type II: BI, biosynthesis

Interferon Type II: BL, blood

Interleukin-6: BI, biosynthesis

Mollusca: IM, immunology

N-Methyl-3,4-methylenedioxymphetamine: AD, administration & dosage

\*N-Methyl-3,4-methylenedioxymphetamine: PD, pharmacology

Rats

Rats, Sprague-Dawley

Time Factors

RN 42542-10-9 (N-Methyl-3,4-methylenedioxymphetamine); 82115-62-6

(Interferon Type II); 9013-72-3 (Hemocyanin)

CN 0 (Epitopes, T-Lymphocyte); 0 (Immunoglobulin G); 0 (Immunoglobulin M); 0 (Interleukin-6); 0 (keyhole-limpet hemocyanin)

L39 ANSWER 5 OF 51 MEDLINE on STN DUPLICATE 7

AN 9642521X MEDLINE

DN PubMed ID: 8827668

TI Antibodies to arthropod-borne encephalitis viruses in small mammals from southern Florida.

AU Day J F; Stark L M; Zhang J T; Ramsey A M; Scott T W

CS Florida Medical Entomology Laboratory, University of Florida, Vero Beach 32962, USA.

NC AI-20983 (NIAID)

AI-22119 (NIAID)

AI-26787 (NIAID)

SO Journal of wildlife diseases, (1996 Jul) 32 (3) 431-6.

Journal code: 0244160. ISSN: 0090-3558.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199701

ED Entered STN: 19970219

Last Updated on STN: 19970219

Entered Medline: 19970121

AB From 1987 through 1991, blood samples were collected from 10 species of

small mammals in Indian River Country, Florida (USA). Sera from 1,347 animals were analyzed for hemagglutination-inhibition (HI) antibody to St. Louis encephalitis (SLE) and eastern equine encephalitis (EEE) viruses. Of these, 75 (5.6%) were positive for HI antibody to SLE virus and 121 (9.0%) were positive for EEE antibody. Sera from five mammalian species were tested for neutralizing (NT) antibody to SLE, EEE, Highlands J (HJ a member of the western equine encephalitis virus complex), or Everglades (EVE, a member of the Venezuelan equine encephalitis complex) viruses. By serum neutralization tests, 26 (46%) of 57 had SLE antibodies, 14 (24%) of 58 had EEE antibodies, two (3.2%) of 63 had HJ antibodies, and 9 (14%) of 63 had **EVE antibodies**. One *Sigmodon hispidus* and one *Peromyscus gossypinus* had NT antibodies both to EEE and HJ viruses. Blood samples from 512 mammals were tested for virus. Isolations of one EVE virus and two unidentified arenaviruses were made from *P. gossypinus* and one EVE virus isolate was made from a *S. hispidus*.

CT Check Tags: Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.  
Animals

\*Antibodies, Viral: BL, blood  
\*Encephalitis Virus, Eastern Equine: IM, immunology  
\*Encephalitis Virus, St. Louis: IM, immunology  
Encephalitis, St. Louis: EP, epidemiology  
\*Encephalitis, St. Louis: VE, veterinary  
Encephalomyelitis, Equine: EP, epidemiology  
\*Encephalomyelitis, Equine: VE, veterinary  
Florida: EP, epidemiology  
Hemagglutination Inhibition Tests: VE, veterinary  
Hesperomyinae

\*Mammals  
Neutralization Tests: VE, veterinary  
Opossums  
Peromyscus  
Prevalence  
Rodent Diseases: EP, epidemiology  
Sciuridae

CN 0 (Antibodies, Viral)

L39 ANSWER (6) OF 51 MEDLINE on STN DUPLICATE 9  
AN 94359473 MEDLINE  
DN PubMed ID: 7915818  
TI Mutations in some Polycomb group genes of *Drosophila* interfere with regulation of segmentation genes.  
AU McKeon J; Slade E; Sinclair D A; Cheng N; Couling M; Brock H W  
CS Department of Zoology, University of British Columbia, Vancouver, Canada.  
SO Molecular & general genetics : MGG, (1994 Sep 1) 244 (5) 474-83.  
Journal code: 0125036. ISSN: 0026-8925.  
CY GERMANY: Germany, Federal Republic of  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199410  
ED Entered STN: 19941013  
Last Updated on STN: 19950206  
Entered Medline: 19941006  
AB Mutations in several Polycomb (Pc) group genes cause maternal-effect or zygotic segmentation defects, suggesting that Pc group genes may regulate the segmentation genes of *Drosophila*. We show that individuals doubly heterozygous for mutations in polyhomeotic and six other Pc group genes show gap, pair rule, and segment polarity segmentation defects. We examined double heterozygous combinations of Pc group and segmentation

mutations for enhancement of adult and embryonic segmentation defects. Posterior sex combs and polyhomeotic interact with Kruppel and enhance embryonic phenotypes of hunchback and knirps, and polyhomeotic enhances even-skipped. Surprisingly, flies carrying duplications of extra sex combs (esc), that were heterozygous for mutations of even-skipped (eve), were extremely subvital. Embryos and surviving adults of this genotype showed strong segmentation defects in even-numbered segments.

**Antibody** studies confirm that expression of **eve** is suppressed by duplications of esc. However, esc duplications have no effect on other gap or pair rule genes tested. To our knowledge, this is only the second triplo-abnormal phenotype associated with Pc group genes. Duplications of nine other Pc group genes have no detectable effect on eve. Expression of engrailed (en) was abnormal in the central nervous systems of most Pc group mutants. These results support a role for Pc genes in regulation of some segmentation genes, and suggest that esc may act differently from other Pc group genes.

CT Check Tags: Female; Male; Support, Non-U.S. Gov't

Abdomen: EM, embryology

Animals

\*Central Nervous System: EM, embryology

Chromatin: CH, chemistry

\*Drosophila melanogaster: EM, embryology

Drosophila melanogaster: GE, genetics

Ectoderm: PH, physiology

Embryo, Nonmammalian: GD, growth & development

\*Gene Expression Regulation

\*Genes, Homeobox

\*Genes, Insect

Heterozygote

Multigene Family

Repressor Proteins: PH, physiology

Thorax: EM, embryology

Transcription, Genetic

CN 0 (Chromatin); 0 (Repressor Proteins)

GEN Asx; Pc; Pcl; Psc; Sce; Scm; en; esc; eve; ph

L39 ANSWER 7 OF 51 MEDLINE on STN

DUPLICATE 10

AN 94158817 MEDLINE

DN PubMed ID: 7906857

TI Participation of cytochrome P450-2B and -2D isozymes in the demethylenation of methylenedioxymethamphetamine enantiomers by rats.

AU Kumagai Y; Lin L Y; Hiratsuka A; Narimatsu S; Suzuki T; Yamada H; Oguri K; Yoshimura H; Cho A K

CS Department of Pharmacology, University of California, Los Angeles School of Medicine 90024.

NC DA04206 (NIDA)

SO Molecular pharmacology, (1994 Feb) 45 (2) 359-65.

Journal code: 0035623. ISSN: 0026-895X.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199403

ED Entered STN: 19940406

Last Updated on STN: 19950206

Entered Medline: 19940331

AB The cytochrome P450 isozymes in rat liver microsomes that catalyze the demethylenation of methylenedioxymethamphetamine enantiomers to the corresponding dihydroxymethamphetamine were characterized.

Dihydroxymethamphetamine formation in liver microsomes from male Sprague-Dawley rats exhibited multienzyme kinetics, with  $K_m$  values in the micromolar/millimolar range. The stereoselectivity [(+)-isomer versus (-)-isomer] varied from 0.78 to 1.94 after pretreatment of the rats with phenobarbital, 3-methylcholanthrene, pregnenolone-16 alpha-carbonitrile, or pyrazole, suggesting that different isozymes participate in the reaction. The low- $K_m$  demethylenation was not induced by these compounds and was not inhibited by **antibodies** raised against CYP2C11.

Liver microsomes from female Dark-Agouti rats, a strain genetically deficient in CYP2D1, exhibited demethylenation activities that were 9% of those in microsomes from male Sprague-Dawley rats. The low- $K_m$  demethylenation was also inhibited by CYP2D substrates such as sparteine, bufuralol, or desipramine and was almost completely inhibited by **antibodies** against P450 BTL, which belongs to the CYP2D family. The high- $K_m$  demethylation activity was induced by phenobarbital and pregnenolone-16 alpha-carbonitrile and the activity in both untreated and phenobarbital-induced microsomes was suppressed by anti-CYP2B1 IgG. Experiments with IgG raised against cytochrome b5 suggested that the hemoprotein contributed to the low- $K_m$  activity but not the high- $K_m$  activity. These results indicate that cytochrome P450 isozymes belonging to the CYP2D subfamily catalyze demethylenation with low  $K_m$  values and that the reaction occurring with high  $K_m$  values is likely to be mediated by members of the CYP2B family, but with the possible participation of other phenobarbital-inducible isoforms.

CT Check Tags: Female; Male; Support, U.S. Gov't, P.H.S.

\*3,4-Methylenedioxyamphetamine: AA, analogs & derivatives

3,4-Methylenedioxyamphetamine: ME, metabolism

Animals

#### **Antibodies**

Biotransformation

Cytochrome P-450 Enzyme System: AI, antagonists & inhibitors

Cytochrome P-450 Enzyme System: IM, immunology

\*Cytochrome P-450 Enzyme System: ME, metabolism

Designer Drugs: ME, metabolism

Enzyme Induction

Isoenzymes: AI, antagonists & inhibitors

Isoenzymes: IM, immunology

\*Isoenzymes: ME, metabolism

Kinetics

\*Microsomes, Liver: EN, enzymology

N-Methyl-3,4-methylenedioxyamphetamine

Phenobarbital: PD, pharmacology

Rats

Rats, Sprague-Dawley

Stereoisomerism

RN 42542-10-9 (N-Methyl-3,4-methylenedioxyamphetamine);

4764-17-4 (3,4-Methylenedioxyamphetamine); 50-06-6

(Phenobarbital); 9035-51-2 (Cytochrome P-450 Enzyme System)

CN 0 (**Antibodies**); 0 (Designer Drugs); 0 (Isoenzymes)

L39 ANSWER 8 OF 51 MEDLINE on STN

DUPLICATE 11

AN 93062835 MEDLINE

DN PubMed ID: 1435745

TI Regiochemical differences in cytochrome P450 isozymes responsible for the oxidation of methylenedioxyphenyl groups by rabbit liver.

AU Kumagai Y; Lin L Y; Philpot R M; Yamada H; Oguri K; Yoshimura H; Cho A K

CS Department of Pharmacology, UCLA School of Medicine 90024.

NC DA 04206 (NIDA)

SO Molecular pharmacology, (1992 Oct) 42 (4) 695-702.

Journal code: 0035623. ISSN: 0026-895X.

CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199212  
ED Entered STN: 19930122  
Last Updated on STN: 19930122  
Entered Medline: 19921201

AB The cytochrome P450 isozymes catalyzing the oxidation of the methylenedioxyphenyl compounds methylenedioxybenzene (MDB) and methylenedioxyamphetamine (MDA) have been investigated in rabbit liver preparations. The aromatic ring in MDB undergoes both demethylenation to catechol and aromatic hydroxylation to sesamol, whereas that in MDA undergoes only demethylenation to dihydroxyamphetamine. Formation of catechol and sesamol from MDB in microsomal incubation mixtures was enhanced about 5- and 3-fold, respectively, by pretreatment of the rabbits with phenobarbital, which induced CYP2B4 and CYP4B1. The cytochrome P450 isozyme responsible for aromatic hydroxylation of MDB was induced by beta-naphthoflavone and was inhibited by alpha-naphthoflavone. Microsomal demethylenation of MDA was minimally sensitive to pretreatment of the rabbits with phenobarbital, beta-naphthoflavone, pyrazole, or rifampicin. However, MDA competitively inhibited the N-demethylation of erythromycin. **Antibodies** against CYP2B4, but not those against CYP4B1, caused a marked inhibition of the demethylenation and aromatic hydroxylation of MDB. **Antibodies** against CYP2C3 did not inhibit the demethylenation of MDA, nor did substrates or inhibitors of the CYP2D family except for bufuralol. MDB and MDA were both capable of forming metabolic intermediate complexes, and the rate of complex formation was accelerated by phenobarbital induction. Reconstitution experiments with CYP2B4 suggested that phenobarbital-inducible complex formation from MDA was not due to the carbene pathway involving the methylenedioxy group but was due to oxidation of the amino group. These results indicate that CYP2B4 oxidizes different regions of methylenedioxyphenyl compounds depending on their structure. MDB undergoes oxidation at the methylenedioxy group (major) and the benzene ring (minor). MDA is oxidized at the alkylamino side chain at the nitrogen and alpha-carbon. The results suggested that one or more constitutive isoforms (probably unknown) of cytochrome P450 present in rabbit liver microsomes are primarily responsible for MDA demethylenation but that CYP3A6 contributes slightly.

CT Check Tags: Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.  
\*3,4-Methylenedioxyamphetamine: ME, metabolism  
Animals  
Biotransformation  
\*Cytochrome P-450 Enzyme System: ME, metabolism  
\*Dioxoles: ME, metabolism  
Enzyme Induction  
Isoenzymes: ME, metabolism  
\*Microsomes, Liver: EN, enzymology  
Oxidation-Reduction  
Rabbits

RN 274-09-9 (1,3-benzodioxole); 4764-17-4 (3,4-Methylenedioxyamphetamine); 9035-51-2 (Cytochrome P-450 Enzyme System)

CN 0 (Dioxoles); 0 (Isoenzymes)

L39 ANSWER 9 OF 51 MEDLINE on STN DUPLICATE 12  
AN 92354191 MEDLINE



DN PubMed ID: 1386563  
 TI On the origin of C3 nephritic factor (antibody to the alternative pathway C3 convertase): evidence for the Adam and Eve concept of autoantibody production.  
 AU Spitzer R E; Stitzel A E; Tsokos G  
 CS Department of Pediatrics, SUNY Health Science Center, Syracuse 13210.  
 SO Clinical immunology and immunopathology, (1992 Sep) 64 (3) 177-83.  
 Journal code: 0356637. ISSN: 0090-1229.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 (META-ANALYSIS)  
 LA English  
 FS Priority Journals  
 EM 199209  
 ED Entered STN: 19920925  
 Last Updated on STN: 19920925  
 Entered Medline: 19920908  
 AB The antibody to the alternative pathway C3 convertase, designated C3 nephritic factor or C3NeF, is an autoantibody that is produced in everyone from the time of birth. The elaboration of C3NeF utilizes germline V-region genes which undergo antigen-driven affinity maturation, resulting in an autoantibody that is produced in large amounts with high affinity and narrow specificity. Our data also suggest that under normal conditions, the idiotypic network may play an important part in the control of this autoantibody. Further, a defect in the network with loss of control or inappropriate stimulation may be an underlying mechanism in the unrestricted production of C3NeF in patients with membranoproliferative glomerulonephritis.  
 CT Check Tags: Human  
 Adult  
 Antibodies, Anti-Idiotypic: IM, immunology  
 Antibody Formation  
 Autoantibodies: IM, immunology  
 \*Complement 3 Nephritic Factor: IM, immunology  
 Immunoglobulin Idiotypes: IM, immunology  
 Infant, Newborn  
 Meta-Analysis  
 CN 0 (Antibodies, Anti-Idiotypic); 0 (Autoantibodies); 0 (Complement 3 Nephritic Factor); 0 (Immunoglobulin Idiotypes)  
 L39 ANSWER 10 OF 51 MEDLINE on STN DUPLICATE 13  
 AN 91087500 MEDLINE  
 DN PubMed ID: 1979827  
 TI Detection of D,L-amphetamine, D,L-methamphetamine, and illicit amphetamine analogs using diagnostic products corporation's amphetamine and methamphetamine radioimmunoassay.  
 AU Cody J T  
 CS Air Force Drug Testing Laboratory, Brooks AFB, Texas 78235-5000.  
 SO Journal of analytical toxicology, (1990 Sep-Oct) 14 (5) 321-4.  
 Journal code: 7705085. ISSN: 0146-4760.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199102  
 ED Entered STN: 19910322  
 Last Updated on STN: 19950206  
 Entered Medline: 19910201  
 AB Cross-reactivity with Diagnostic Products Corporation (DPC) amphetamine

and methamphetamine radioimmunoassay (RIA) reagents was determined for amphetamine, methamphetamine, and a number of amphetamine analogs. Concentrations from 100 to 100,000 ng/mL were assayed. 3,4-Methylenedioxyamphetamine (MDA) and 3,4-methylenedioxymethamphetamine (MDMA) showed significant cross-reactivity for the amphetamine and methamphetamine reagents respectively. 4-Hydroxymethamphetamine, 3,4-methylenedioxyethylamphetamine (MDEA), and N,N-dimethyl-MDA also showed significant cross-reactivity with the methamphetamine reagents, but less than MDMA. None of the other analogs showed a positive result with the amphetamine or methamphetamine reagents at even the highest concentration, although several did show measurable cross-reactivity. The L isomers of amphetamine and methamphetamine showed substantially less cross-reactivity than the D forms to which the respective **antibody** systems are targeted.

CT 3,4-Methylenedioxyamphetamine: AA, analogs & derivatives

3,4-Methylenedioxyamphetamine: AN, analysis

3,4-Methylenedioxyamphetamine: IM, immunology

\*Amphetamines: AN, analysis

Cross Reactions

Indicators and Reagents

Isomerism

\*Methamphetamine: AN, analysis

N-Methyl-3,4-methylenedioxyamphetamine

Radioimmunoassay

RN 42542-10-9 (N-Methyl-3,4-methylenedioxyamphetamine);

4764-17-4 (3,4-Methylenedioxyamphetamine); 537-46-2  
(Methamphetamine)

CN 0 (Amphetamines); 0 (Indicators and Reagents)

L39 ANSWER 11 OF 51 MEDLINE on STN DUPLICATE 14

AN 89038469 MEDLINE

DN PubMed ID: 2903272

TI Comparison of three commercial amphetamine immunoassays for detection of methamphetamine, methylenedioxyamphetamine, methylenedioxymethamphetamine, and methylenedioxyethylamphetamine.

AU Ruangyuttikarn W; Moody D E

CS Department of Pharmacology and Toxicology, University of Utah, College of Pharmacy, Salt Lake City 84112.

SO Journal of analytical toxicology, (1988 Jul-Aug) 12 (4) 229-33.  
Journal code: 7705085. ISSN: 0146-4760.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 198812

ED Entered STN: 19900308

Last Updated on STN: 19960129

Entered Medline: 19881220

AB Three commercial immunoassays for detection of amphetamines in urine, Abuscreen radioimmunoassay (RIA), enzyme-multiplied immunoassay technique (EMIT), and the TDx fluorescence polarization immunoassay (FPIA), have been investigated for detection of methamphetamine, 3,4-methylenedioxyamphetamine (MDA), 3,4-methylenedioxymethamphetamine (MDMA), and 3,4-methylenedioxyethylamphetamine (MDE). Blank urine was spiked with 0.1 to 3000 micrograms/mL amphetamine analog and used as sample in the assays. With the RIA and FPIA, MDA displayed a higher cross-reactivity to amphetamine than other analogs, but with EMIT, methamphetamine was relatively similar to amphetamine while MDA, MDMA, and MDE were less reactive. The high specificity RIA and the EMIT confirmation reagents for

urine amphetamines produced significant, but relatively minor, reduction in the detectability of these analogs. The variation in cross-reactivity seen between the different assays suggests that RIA, EMIT, and FPIA **antibodies** have different recognition sites; however, all three immunoassays do detect the illicit amphetamine analogs to varying degrees.

CT Check Tags: Comparative Study; Support, Non-U.S. Gov't  
 3,4-Methylenedioxyamphetamine: AA, analogs & derivatives  
 \*3,4-Methylenedioxyamphetamine: UR, urine  
 \*Amphetamines: UR, urine  
 Cross Reactions  
 Immunoassay  
 Immunoenzyme Techniques  
 \*Methamphetamine: UR, urine  
 N-Methyl-3,4-methylenedioxyamphetamine  
 Radioimmunoassay  
 Reagent Kits, Diagnostic  
 \*Street Drugs: UR, urine

RN 42542-10-9 (N-Methyl-3,4-methylenedioxyamphetamine);  
 4764-17-4 (3,4-Methylenedioxyamphetamine); 537-46-2  
 (Methamphetamine); 82801-81-8 (3,4-methylenedioxyethamphetamine)

CN 0 (Amphetamines); 0 (Reagent Kits, Diagnostic); 0 (Street Drugs)

L39 ANSWER (12) OF 51 MEDLINE on STN  
 AN 2004021750 MEDLINE  
 DN PubMed ID: 14504335  
 TI Acute basilar artery occlusion treated by thromboaspiration in a cocaine and ecstasy abuser.  
 AU Vallee J-N; Crozier S; Guillevin R; Obadia M; Lo D; Barragan-Campos H M; Samson Y; Chiras J  
 CS Department of Diagnostic and Interventional Neuroradiology, Pitie-Salpetriere Hospital, Medical Universite of Paris, France.. valleejn@free.fr  
 SO Neurology, (2003 Sep 23) 61 (6) 839-41.  
 Journal code: 0401060. ISSN: 1526-632X.  
 CY United States  
 DT (CASE REPORTS)  
 Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 200404  
 ED Entered STN: 20040115  
 Last Updated on STN: 20040417  
 Entered Medline: 20040416

AB Thromboaspiration was performed in a young adult in a coma because of acute basilar artery occlusion associated with cocaine and ecstasy abuse 30 hours after symptom onset. There was complete recanalization of the basilar artery and favorable recovery. Because cocaine and ecstasy abuse has been reported to be a risk factor for ischemic stroke and fatal brain hemorrhage, thromboaspiration may be an alternative therapy to thrombolysis.

CT Check Tags: Female; Human  
 Adult  
**Antibodies, Monoclonal: TU, therapeutic use**  
 Brain Ischemia: DT, drug therapy  
 \*Brain Ischemia: ET, etiology  
 Brain Ischemia: SU, surgery  
 Catheterization  
 Cerebral Hemorrhage: PC, prevention & control  
 \*Cocaine: AE, adverse effects

Cocaine: PK, pharmacokinetics  
 \*Cocaine-Related Disorders: CO, complications  
 Coma: ET, etiology  
 Immunoglobulins, Fab: TU, therapeutic use  
 \*N-Methyl-3,4-methylenedioxyamphetamine: AE, adverse effects  
 N-Methyl-3,4-methylenedioxyamphetamine: PK, pharmacokinetics  
 Pons: BS, blood supply  
 Serotonin: PH, physiology  
 Severity of Illness Index  
 \*Substance-Related Disorders: CO, complications  
 Suction: IS, instrumentation  
 Thrombectomy: IS, instrumentation  
 \*Thrombectomy: MT, methods  
 Thrombophilia: CI, chemically induced  
 Vasospasm, Intracranial: CI, chemically induced  
 Vertebrobasilar Insufficiency: DT, drug therapy  
 Vertebrobasilar Insufficiency: ET, etiology  
 \*Vertebrobasilar Insufficiency: SU, surgery  
 RN 143653-53-6 (abciximab); 42542-10-9 (N-Methyl-3,4-  
 methylenedioxyamphetamine); 50-36-2 (Cocaine); 50-67-9 (Serotonin)  
 CN 0 (Antibodies, Monoclonal); 0 (Immunoglobulins, Fab)

L39 ANSWER 13 OF 51 MEDLINE on STN  
 AN 1999015555 MEDLINE  
 DN PubMed ID: 9800936  
 TI **Antibodies** against copper-oxidised and malondialdehyde-modified  
 low density lipoproteins in pre-eclampsia pregnancies.  
 AU Uotila J; Solakivi T; Jaakkola O; Tuimala R; Lehtimäki T  
 CS Department of Obstetrics and Gynaecology, Tampere University Hospital,  
 Finland.  
 SO British journal of obstetrics and gynaecology, (1998 Oct) 105 (10) 1113-7.  
 Journal code: 7503752. ISSN: 0306-5456.  
 CY ENGLAND: United Kingdom  
 DT (CLINICAL TRIAL)  
 (CONTROLLED CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 199811  
 ED Entered STN: 19990106  
 Last Updated on STN: 19990106  
 Entered Medline: 19981110  
 AB OBJECTIVE: To measure auto-**antibodies** against oxidatively  
 modified low density lipoprotein (LDL) in pre-eclamptic pregnancies using  
 two different techniques. DESIGN: Clinical study comparing pre-eclamptic  
 and normal pregnancies. SETTING: Tampere University Hospital, Finland.  
 POPULATION: Twenty-one primigravidae with pre-eclampsia and 13 healthy,  
 normotensive primigravidae as controls. METHODS: The serum titers of  
**antibodies** against both malondialdehyde-modified and  
 copper-oxidised LDL (MDA-LDL and copper-ox LDL) were analysed and related  
 to parameters reflecting the severity of pre-eclampsia. RESULTS: There  
 was a positive correlation ( $r = 0.58$ ) between **antibodies** against  
 MDA-LDL and copper-ox LDL in women with pre-eclampsia but not in healthy  
 pregnant controls. The **antibody** levels against copper-ox LDL,  
 but not against MDA-LDL, were higher in women with pre-eclampsia than in  
 women with a normal pregnancy ( $P < 0.01$ ). While the **antibody**  
 titers against copper-ox LDL did not correlate with any parameter  
 reflecting the severity of pre-eclampsia, those against MDA-LDL showed a  
 positive correlation with the level of diastolic blood pressure ( $r = 0.54$ )

and a negative correlation with platelet count ( $r = -0.61$ ) in women with pre-eclampsia. CONCLUSION: There are increased titers of serum **autoantibodies** against copper-oxidised LDL in pre-eclampsia, which may reflect enhanced lipid peroxidation involving circulating lipoproteins.

CT Check Tags: Comparative Study; Female; Human; Support, Non-U.S. Gov't  
3,4-Methylenedioxyamphetamine: IM, immunology  
Adult

**\*Autoantibodies: AN, analysis**

Copper: IM, immunology

Gestational Age

\*Lipoproteins, LDL: IM, immunology

Lipoproteins, LDL: ME, metabolism

Maternal Age

Oxidation-Reduction

\*Pre-Eclampsia: IM, immunology

Pregnancy

Sensitivity and Specificity

RN 4764-17-4 (3,4-Methylenedioxyamphetamine); 7440-50-8 (Copper)

CN 0 (Autoantibodies); 0 (Lipoproteins, LDL)

L39 ANSWER (14) OF 51 MEDLINE on STN

AN 96285881 MEDLINE

DN PubMed ID: 8721431

TI Fatal poisoning by MDMA (ecstasy) and MDEA: a case report.

AU Fineschi V; Masti A

CS Department of Forensic Science, University of Siena, Policlinico Le Scotte, Italy.

SO International journal of legal medicine, (1996) 108 (5) 272-5.

Journal code: 9101456. ISSN: 0937-9827.

CY GERMANY: Germany, Federal Republic of

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199610

ED Entered STN: 19961015

Last Updated on STN: 19961015

Entered Medline: 19961002

AB The first observation of lethal recreational use of MDMA (ecstasy) and MDEA in Italy is reported, together with extensive toxicological and histopathological documentation. Findings such as disseminated intravascular coagulation, rarely reported before, are colocated in the framework of the toxic syndrome for a better definition of criteria for forensic diagnosis.

CT Check Tags: Human

\*3,4-Methylenedioxyamphetamine: AA, analogs & derivatives

3,4-Methylenedioxyamphetamine: PK, pharmacokinetics

3,4-Methylenedioxyamphetamine: PO, poisoning

Capillaries: PA, pathology

Designer Drugs: PK, pharmacokinetics

\*Designer Drugs: PO, poisoning

**Fluorescent Antibody Technique**

Hallucinogens: PK, pharmacokinetics

\*Hallucinogens: PO, poisoning

Kidney Tubules: PA, pathology

Lung: BS, blood supply

Mass Fragmentography

Myoglobinuria: BL, blood

\*Myoglobinuria: CI, chemically induced

Myoglobinuria: PA, pathology  
 N-Methyl-3,4-methylenedioxyamphetamine: PK, pharmacokinetics  
 \*N-Methyl-3,4-methylenedioxyamphetamine: PO, poisoning  
 Overdose: BL, blood  
 \*Overdose: PA, pathology  
 Poisoning: BL, blood  
 \*Poisoning: PA, pathology  
 Pulmonary Embolism: BL, blood  
 Pulmonary Embolism: CI, chemically induced  
 Pulmonary Embolism: PA, pathology  
 RN 42542-10-9 (N-Methyl-3,4-methylenedioxyamphetamine);  
 4764-17-4 (3,4-Methylenedioxyamphetamine); 82801-81-8  
 (3,4-methylenedioxyethamphetamine)  
 CN 0 (Designer Drugs); 0 (Hallucinogens)

L39 ANSWER 15 OF 51 MEDLINE on STN  
 AN 94350052 MEDLINE  
 DN PubMed ID: 8070524  
 TI Immunocytochemical evidence for serotonergic neurotoxicity of  
 N-ethyl-methylenedioxyamphetamine (MDE).  
 AU Series H G; Molliver M E  
 CS Department of Neuroscience, Johns Hopkins University School of Medicine,  
 Baltimore, Maryland 21205.  
 NC NS15199 (NINDS)  
 SO Experimental neurology, (1994 Jul) 128 (1) 50-8.  
 Journal code: 0370712. ISSN: 0014-4886.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 EM 199409  
 ED Entered STN: 19941006  
 Last Updated on STN: 19960129  
 Entered Medline: 19940923

AB N-ethyl-3,4-methylenedioxyamphetamine (MDE) is one of a group of  
 substituted amphetamines which have effects on several serotonergic  
 markers such as tissue levels of serotonin and activity of tryptophan  
 hydroxylase. In this study we have compared its effects on the rat brain  
 with those of p-chloroamphetamine (PCA) using serotonin  
 immunocytochemistry with a primary 5-HT **antibody** and a secondary  
 avidin-biotin-HRP **antibody**. Two weeks after multiple (40 mg/kg  
 x 8), but not single, injections of MDE there was a pronounced reduction  
 in the number of serotonin-immunoreactive axons seen. This reduction was  
 most marked in areas innervated extensively by serotonergic axons with  
 varicosities of the fine type (e.g., posterior cerebral cortex and area  
 CA1 of hippocampus). The reduction was quantitatively less than but  
 qualitatively similar to that produced by a single dose of PCA (10 mg/kg).  
 In material from short (3 day) survival animals, a large number of  
 morphologically highly abnormal forms could be seen, suggestive of  
 degenerating axons. A parallel series of sections prepared using tyrosine  
 hydroxylase immunocytochemistry showed no differences between saline  
 controls and PCA- or MDE-treated animals. We conclude that multiple  
 systemic injections of MDE reduce the number of serotonin-immunoreactive  
 fibers in the rat brain 2 weeks after treatment.

CT Check Tags: Comparative Study; Male; Support, Non-U.S. Gov't; Support,  
 U.S. Gov't, P.H.S.  
 \*3,4-Methylenedioxyamphetamine: AA, analogs & derivatives  
 3,4-Methylenedioxyamphetamine: PO, poisoning  
 Animals

Brain: CY, cytology  
\*Brain: DE, drug effects  
\*Brain: ME, metabolism  
Cell Survival: DE, drug effects  
Immunohistochemistry  
\*Neurons: DE, drug effects  
\*Neurons: ME, metabolism  
Rats  
Rats, Sprague-Dawley  
\*Serotonin: ME, metabolism  
Time Factors  
p-Chloroamphetamine: PD, pharmacology  
RN 4764-17-4 (3,4-Methylenedioxyamphetamine); 50-67-9 (Serotonin);  
64-12-0 (p-Chloroamphetamine); 82801-81-8 (3,4-  
methylenedioxyethamphetamine)

L39 ANSWER (16) OF 51 MEDLINE on STN  
AN 90189795 MEDLINE  
DN PubMed ID: 2314063  
TI Cross-reactivity of amphetamine analogues with Roche Abuscreen  
radioimmunoassay reagents.  
AU Cody J T  
CS Air Force Drug Testing Laboratory, Brooks AFB, TX 78235-5000.  
SO Journal of analytical toxicology, (1990 Jan-Feb) 14 (1) 50-3.  
Journal code: 7705085. ISSN: 0146-4760.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199004  
ED Entered STN: 19900601  
Last Updated on STN: 19980206  
Entered Medline: 19900425  
AB Cross-reactivity of amphetamine analogues with the Abuscreen amphetamine  
radioimmunoassay reagents was determined for both the standard and high  
specificity antibody systems. Compounds tested included  
2-methoxyamphetamine, 4-hydroxymethamphetamine, 2,5-dimethoxyamphetamine  
(DMA), 4-bromo-2,5-dimethoxyamphetamine (DOB), 4-bromo-2,5-dimethoxy-beta-  
phenethylamine (BDMPEA), 3,4,5-trimethoxyamphetamine (TMA),  
3,4-methylenedioxyamphetamine (MDA), N,N-dimethyl-3,4-  
methylenedioxyamphetamine and N-hydroxy-3,4-methylenedioxyamphetamine  
(N-OH MDA), 3,4-methylenedioxymethamphetamine (MDMA), 3,4-  
methylenedioxyethylamphetamine (MDEA), 2,5-dimethoxy-4-ethylamphetamine,  
2,5-dimethoxy-4-methylamphetamine (DOM), and 3,4,5-  
trimethoxyphenethylamine (mescaline). Blank negative reference material  
was spiked with 1,000 to 100,000 ng/mL of the amphetamine analogue and  
used as sample in the assays. MDA was the only analogue that showed cross  
reactivity equal to or greater than that of amphetamine. None of the  
other analogue compounds demonstrated a positive result at even the  
highest concentration; however several showed depressed counts at various  
concentration levels.  
CT Check Tags: Human  
3,4-Methylenedioxyamphetamine: AN, analysis  
\*Amphetamines: AN, analysis  
Cross Reactions  
Indicators and Reagents  
Iodine Radioisotopes: DU, diagnostic use  
Mass Fragmentography  
Radioimmunoassay

\*Substance Abuse Detection: IS, instrumentation  
\*Substance-Related Disorders: DI, diagnosis  
Substance-Related Disorders: UR, urine  
RN 4764-17-4 (3,4-Methylenedioxyamphetamine)  
CN 0 (Amphetamines); 0 (Indicators and Reagents); 0 (Iodine Radioisotopes)

L39 ANSWER 17 OF 51 MEDLINE on STN  
AN 88338598 MEDLINE  
DN PubMed ID: 3421239  
TI Risk factors for HIV infection in male sexual contacts of men with AIDS or an AIDS-related condition.  
CM Comment in: Am J Epidemiol. 1989 Sep;130(3):618-9. PubMed ID: 2764008  
AU Coates R A; Calzavara L M; Read S E; Fanning M M; Shepherd F A; Klein M H; Johnson J K; Soskolne C L  
CS Department of Preventive Medicine and Biostatistics, Faculty of Medicine, University of Toronto, Ontario, Canada.  
SO American journal of epidemiology, (1988 Oct) 128 (4) 729-39.  
Journal code: 7910653. ISSN: 0002-9262.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals; AIDS  
EM 198810  
ED Entered STN: 19900308  
Last Updated on STN: 19970203  
Entered Medline: 19881018

AB A total of 246 healthy male sexual contacts of men with either acquired immunodeficiency syndrome (AIDS) or an AIDS-related condition were recruited into a prospective study in Toronto, Canada between July 1984 and July 1985. At induction, data were collected on the sexual relationship between the contact and his primary case, sexual activities with other men, history of sexually transmitted diseases and other diseases, and use of recreational drugs. At recruitment, 144 sexual contacts had **antibodies** to human immunodeficiency virus (HIV); 102 of the contacts were seronegative at induction and at three months following recruitment. No association between HIV seropositivity and total number of sexual partners could be demonstrated. In univariate and multivariate analyses, receptive and insertive anal intercourse with the primary cases, and activities which either indicated or potentially caused anorectal mucosal injury (rectal douching, perianal bleeding, receipt of objects in ano, and receptive fisting) were strongly associated with HIV seropositivity. In the final multiple logistic regression model, two significant interaction effects were observed: the interaction between receptive anal intercourse and insertive anal intercourse and that between receptive anal intercourse and the anorectal mucosal injury index. These two interaction terms had negative regression coefficients which suggested that change in one sexual activity would not decrementally reduce risk of HIV infection without a comparable modification in the other activity. No association could be demonstrated between oral-genital and oral-anal sexual contact and odds ratios for these sexual activities declined to levels below 1.0 when adjusted for frequency of receptive anal intercourse.

CT Check Tags: Human; Male; Support, Non-U.S. Gov't  
3,4-Methylenedioxyamphetamine: AE, adverse effects  
\*Acquired Immunodeficiency Syndrome: ET, etiology  
Acquired Immunodeficiency Syndrome: TM, transmission  
Adult  
\*HIV Seropositivity: ET, etiology  
HIV Seropositivity: TM, transmission



Homosexuality  
Questionnaires  
Risk Factors

\*Sexual Behavior  
\*Sexual Partners

RN 4764-17-4 (3,4-Methylenedioxyamphetamine)

L39 ANSWER (18) OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN DUPLICATE 6

AN 1998418639 EMBASE

TI Screening for urinary amphetamine and analogs by capillary electrophoretic immunoassays and confirmation by capillary electrophoresis with on-column multiwavelength absorbance detection.

AU Ramseier A.; Caslavská J.; Thormann W.

CS Dr. W. Thormann, Department of Clinical Pharmacology, Murtenstrasse 35, CH-3010 Bern, Switzerland. wolfgang.thormann@ikp.unibe.ch

SO Electrophoresis, (1998) 19/16-17 (2956-2966).

Refs: 34

ISSN: 0173-0835 CODEN: ELCTDN

CY Germany

DT Journal; Conference Article

FS 027 Biophysics, Bioengineering and Medical Instrumentation

030 Pharmacology

037 Drug Literature Index

040 Drug Dependence, Alcohol Abuse and Alcoholism

LA English

SL English

AB This paper characterizes competitive binding, electrokinetic capillary-based immunoassays for screening of urinary amphetamine (A) and analogs using reagents which were commercialized for a fluorescence polarization immunoassay (FPIA). After incubation of 25 µL urine with the reactants, a small aliquot of the mixture is applied onto a fused-silica capillary and unbound fluorescein-labeled tracer compounds are monitored by capillary electrophoresis with on-column laser-induced fluorescence detection. Configurations in presence and absence of micelles were investigated and found to be capable of recognizing urinary D-(+)amphetamine at concentrations > about 80 ng/mL. Similar responses were obtained for racemic methamphetamine (MA) and 3,4-methylenedioxymethamphetamine (MDMA). The electrokinetic immunoassay data suggest that the FPIA reagent kit includes two immunoassay systems (two **antibodies** and two tracer molecules), one that recognizes MA and MDMA, and one that is geared towards monitoring of A. For confirmation analysis of urinary amphetamines and ephedrines, capillary electrophoresis in a pH 9.2 buffer and multiwavelength UV detection was employed. The suitability of the electrokinetic methods for screening and confirmation is demonstrated via analysis of patient and external quality control urines.

CT Medical Descriptors:

\*drug determination

\*drug urine level

capillary electrophoresis

immunoassay

pH

micelle

quality control

drug isolation

human

controlled study

conference paper

## Drug Descriptors:

\*amphetamine: AN, drug analysis  
 \*amphetamine: CR, drug concentration  
 \*methamphetamine: AN, drug analysis  
 \*methamphetamine: CR, drug concentration  
 \*3,4 methylenedioxymethamphetamine: AN, drug analysis  
 \*3,4 methylenedioxymethamphetamine: CR, drug concentration  
 fluorescein  
 ephedrine derivative  
 buffer

RN (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7,  
 60-13-9, 60-15-1; (methamphetamine) 28297-73-6, 51-57-0, 537-46-2,  
 7632-10-2; (3,4 methylenedioxymethamphetamine) 42542-10-9;  
 (fluorescein) 2321-07-5, 91316-42-6  
 NP (1) P/ACE 5510; (2) BioFocus 3000  
 CO (1) Beckman (United States) ; (2) Biorad (United States)

L39 ANSWER 19 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
 on STN DUPLICATE 8

AN 96349235 EMBASE  
 DN 1996349235

TI Chromophore-assisted laser inactivation of even skipped in Drosophila  
 precisely phenocopies genetic loss of function.

AU Schroder R.; Tautz D.; Jay D.G.

CS Dept. Molecular Cellular Biology, Harvard University, Cambridge, MA 02138,  
 United States

SO Development Genes and Evolution, (1996) 206/1 (86-88).  
 ISSN: 0949-944X CODEN: DGEVFT

CY Germany

DT Journal; Article

FS 021 Developmental Biology and Teratology  
 022 Human Genetics

LA English

SL English

AB The even skipped (eve) gene in Drosophila encodes a homeo-domain protein  
 that acts as a transcriptional regulator during early embryogenesis. We  
 show that an injection of a monoclonal **antibody** against the  
**eve** homeodomain in conjunction with chromophore-assisted laser  
 inactivation (CALI) precisely phenocopies the eve mutant phenotype.  
 Depending on the time of the laser treatment, both the early pair-rule  
 function, as well as the later segmental function of eve can be blocked.  
 This suggests that it might be possible to employ CALI to analyse the  
 function of transcriptional regulators in species that are not amenable to  
 genetic analysis.

CT Medical Descriptors:

\*chromatophore  
 \*gene repression  
 \*homeobox  
 animal experiment  
 animal tissue  
 article  
 controlled study  
 drosophila  
 embryo  
 embryo development  
 laser  
 mutant  
 nonhuman  
 phenotype

priority journal  
 Drug Descriptors:  
 homeodomain protein  
 monoclonal antibody  
 transcription factor

- L39 ANSWER 20 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
 on STM
- AN 2004266786 EMBASE
- TI 3,4-Methylenedioxymethamphetamine increases interleukin-1 $\beta$  levels and  
 activates microglia in rat brain: Studies on the relationship with acute  
 hyperthermia and 5-HT depletion.
- AU Orio L.; O'Shea E.; Sanchez V.; Pradillo J.M.; Escobedo I.; Camarero J.;  
 Moro M.A.; Green A.R.; Colado M.I.
- CS M.I. Colado, Departamento de Farmacologia, Facultad de Medicina,  
 Universidad Complutense, Madrid 28040, Spain. colado@med.ucm.es
- SO Journal of Neurochemistry, (2004) 89/6 (1445-1453).  
 Refs: 52  
 ISSN: 0022-3042 CODEN: JONRA
- CY United Kingdom
- DT Journal; Article
- FS 008 Neurology and Neurosurgery  
 037 Drug Literature Index  
 040 Drug Dependence, Alcohol Abuse and Alcoholism  
 052 Toxicology
- LA English
- SL English
- AB 3,4-Methylenedioxymethamphetamine (MDMA) administration to rats produces  
 acute hyperthermia and 5-HT release. Interleukin-1 $\beta$  (IL-1 $\beta$ ) is a  
 pro-inflammatory pyrogen produced by activated microglia in the brain. We  
 examined the effect of a neurotoxic dose of MDMA on IL-1 $\beta$   
 concentration and glial activation and their relationship with acute  
 hyperthermia and 5-HT depletion. MDMA, given to rats housed at  
 22°C, increased IL-1 $\beta$  levels in hypothalamus and cortex from 1  
 to 6 h and [(3)H]-(1-(2-chlorophenyl)-N-methyl-N-(1-methylpropyl)3-  
 isoquinolinecarboxamide) binding between 3 and 48 h. Increased  
 immunoreactivity to OX-42 was also detected. Rats became hyperthermic  
 immediately after MDMA and up to at least 12 h later. The IL-1 receptor  
 antagonist did not modify MDMA-induced hyperthermia indicating that  
 IL-1 $\beta$  release is a consequence, not the cause, of the rise in body  
 temperature. When MDMA was given to rats housed at 4°C,  
 hyperthermia was abolished and the IL-1 $\beta$  increase significantly  
 reduced. The MDMA-induced acute 5-HT depletion was prevented by fluoxetine  
 coadministration but the IL-1 $\beta$  increase and hyperthermia were  
 unaffected. Therefore, the rise in IL-1 $\beta$  is not related to the acute  
 5-HT release but is linked to the hyperthermia. Contrary to IL-1 $\beta$   
 levels, microglial activation is not significantly modified when  
 hyperthermia is prevented, suggesting that it might be a process not  
 dependent on the hyperthermic response induced by MDMA.
- CT Medical Descriptors:  
 \*hyperthermia  
 \*serotonin release  
 \*neurotoxicity  
 \*microglia  
 cytokine release  
 inflammation  
 hypothalamus  
 brain cortex  
 nonhuman

male  
 rat  
 animal experiment  
 animal model  
 controlled study  
 animal tissue  
 article  
 priority journal  
 Drug Descriptors:  
 \*interleukin 1beta: EC, endogenous compound  
 \*3,4 methylenedioxymethamphetamine: TO, drug toxicity  
 \*3,4 methylenedioxymethamphetamine: PD, pharmacology  
 \*3,4 methylenedioxymethamphetamine: IP, intraperitoneal drug  
 administration  
 \*serotonin: EC, endogenous compound  
 pyrogen: EC, endogenous compound  
 n sec butyl 1 (2 chlorophenyl) n methyl 3 isoquinolinecarboxamide  
 ox 42

**monoclonal antibody**

cell marker  
 CD11b antigen  
 interleukin 1 receptor blocking agent: CV, intracerebroventricular drug  
 administration  
 fluoxetine: IP, intraperitoneal drug administration  
 glial fibrillary acidic protein: EC, endogenous compound  
 unclassified drug

RN (3,4 methylenedioxymethamphetamine) 42542-10-9; (serotonin)  
 50-67-9; (n sec butyl 1 (2 chlorophenyl) n methyl 3  
 isoquinolinecarboxamide) 85532-75-8; (fluoxetine) 54910-89-3, 56296-78-7,  
 59333-67-4

CN 'ecstasy'; Pk 11195

CO Amgen (United States); Nida (United States); Lilly (Spain)

L39 ANSWER 21 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
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AN 2003337130 EMBASE

TI Enkephalin contributes to the locomotor stimulating effects of  
 3,4-methylenedioxy-N-methylamphetamine.

AU Compan V.; Searce-Levie K.; Crosson C.; Daszuta A.; Hen R.

CS Dr. V. Compan, Lab. de Genomique Fonct., CNRS, Marseille, United States.  
 Valerie.Compan@ccipe.cnrs.fr

SO European Journal of Neuroscience, (2003) 18/2 (383-390).  
 Refs: 64

ISSN: 0953-816X CODEN: EJONEI

CY United Kingdom

DT Journal; Article

FS 008 Neurology and Neurosurgery

040 Drug Dependence, Alcohol Abuse and Alcoholism

LA English

SL English

AB 3,4-Methylenedioxy-N-methylamphetamine (MDMA, 'Ecstasy') is a potent  
 inhibitor of serotonin uptake, which induces both an increase in  
 locomotion and a decrease in exploratory activity in rodents. Serotonin  
 5-HT(1B) receptors, located on the terminals of striatal efferent neurons,  
 have been suggested to mediate these motor effects of MDMA. Striatal  
 neurons projecting to the globus pallidus contain metenkephalin, whilst  
 those projecting to the substantia nigra contain substance P. We therefore  
 analysed the levels of both peptides using radioimmunocytochemistry after  
 MDMA administration (10 mg/kg, 3 h) in wild-type and 5-HT(1B) receptor

knockout mice. Our results demonstrate that MDMA induces a decrease in pallidal met-enkephalin immunolabelling in wild-type, but not in 5-HT(1B) receptor knockout mice. Similar results were obtained following treatment with the 5-HT (1A/1B) agonist RU24969 (5 mg/kg, 3 h), suggesting that activation of 5-HT(1B) receptors leads to a reduction in met-enkephalin levels in the globus pallidus. In contrast, MDMA had no effect on the nigral substance P levels. We have previously shown that both MDMA and RU24969 fail to stimulate locomotor activity in 5-HT(1B) receptor knockout mice. Our present data indicate that the opioid antagonist naloxone suppressed the locomotor effects of MDMA. This study is the first to demonstrate that Enk contributes to MDMA-induced increases in locomotor activity. Such an effect may be related to the 5-HT control of pallidal met-enkephalin levels via the 5-HT(1B) receptors.

## CT Medical Descriptors:

\*locomotion

exploratory behavior

animal behavior

stria terminalis

efferent nerve

globus pallidus

peptide analysis

immunocytochemistry

wild type

knockout mouse

**antibody labeling**

substantia nigra

nonhuman

mouse

animal experiment

controlled study

animal tissue

article

priority journal

## Drug Descriptors:

\*enkephalin derivative: EC, endogenous compound

\*3,4 methylenedioxymethamphetamine

serotonin uptake inhibitor

serotonin 1B receptor: EC, endogenous compound

met-enkephalin: EC, endogenous compound

substance P: EC, endogenous compound

serotonin 1A agonist

serotonin 1B agonist

5 methoxy 3 (1,2,3,6 tetrahydro 4 pyridyl) 1h indole

opiate antagonist

naloxone

RN (3,4 methylenedioxymethamphetamine) 42542-10-9; (met-enkephalin) 58569-55-4; (substance P) 33507-63-0; (5 methoxy 3 (1,2,3,6 tetrahydro 4 pyridyl) 1h indole) 66611-26-5; (naloxone) 357-08-4, 465-65-6

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AN 2003142445 EMBASE

TI Bone sialoprotein promotes tumor cell migration in both in vitro and in vitro models.

AU Chen J.; Rodriguez J.A.; Barnett B.; Hashimoto N.; Tang J.

CS J.J. Chen, Department of Pediatric Dentistry, Univ. of Texas Health Science Center, 7703 Floyd Curl Drive, San Antonio, TX 78229, United States. Chenj2@uthscsa.edu

SO Connective Tissue Research, (2003) 44/SUPPL. 1 (279-284).

Refs: 23  
ISSN: 0300-8207 CODEN: CVTRBC  
CY United Kingdom  
DT Journal; Article  
FS 005 General Pathology and Pathological Anatomy  
016 Cancer  
LA English  
SL English  
AB The present study was conducted to determine the effects of bone sialoprotein (BSP) in promoting vascular invasion of tumor cells in metastasis. We used a Matrigel system and the MDA-231 human breast cancer cells transfected with human BSP cDNA (MDA-231/BSP). Quantative analysis indicated an average of 1.7-fold increase in cell numbers that migrated through the endothelial cells in MDA-231/BSP cells compared with empty vector-transfected MDA-231 cells (MDA-231/EV). In an in vivo assay, the MDA-231 cells were incubated with or without BSP **antibodies** and were then inoculated onto the upper chorioallantoic membrane (CAM) of chicken embryos, in which the only route for the tumor cells to reach the lower CAM was to migrate through the embryonic vasculature. PCR amplification using human Alu primers and genomic DNA from harvested lower CAM showed an average reduction of 67% in the samples treated with BSP **antibodies**. These preliminary data suggest that, in metastasis, BSP may enhance the penetrating ability of tumor cells through endothelial cells and basement membrane into blood vessels. BSP **antibodies** can specifically hinder this effect in an in vivo system.  
CT Medical Descriptors:  
\*breast cancer: ET, etiology  
\*cancer cell  
\*metastasis  
protein function  
cell migration  
in vitro study  
in vivo study  
cancer invasion  
blood vessel  
genetic transfection  
quantitative analysis  
cell count  
endothelium cell  
incubation time  
inoculation  
chorioallantois  
chicken  
vascularization  
polymerase chain reaction  
cell membrane potential  
basement membrane  
human  
controlled study  
human cell  
article  
nucleotide sequence  
Drug Descriptors:  
\*sialoprotein: EC, endogenous compound  
matrigel  
3,4 methylenedioxyamphetamine  
complementary DNA: EC, endogenous compound  
**protein antibody**  
primer DNA

genomic DNA  
 RN (matrigel) 119978-18-6; (3,4 methylenedioxymphetamine) 4764-17-4  
 GEN GENBANK J05213 referred number

L39 ANSWER 23 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
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AN 2003337524 EMBASE

TI Evaluation of immunoassays for the determination of MDMA and cannabinoids  
in urine samples.

AU Lua A.C.; Hu A.-R.; Lin B.-F.; Yeh P.-C.; Lin H.-R.; Tseng Y.-T.  
 CS A.C. Lua, Department of Medical Technology, Tzu Chi University, 701  
 Section 3, Chung Yan Road, Hualien, Taiwan 970, China.  
 ahai@mail.tcu.edu.tw

SO Journal of Food and Drug Analysis, (2003) 11/2 (108-113).  
 Refs: 28  
 ISSN: 1021-9498 CODEN: YSFEEP

CY Taiwan, Province of China

DT Journal; Article

FS 027 Biophysics, Bioengineering and Medical Instrumentation  
 032 Psychiatry  
 037 Drug Literature Index  
 040 Drug Dependence, Alcohol Abuse and Alcoholism  
 049 Forensic Science Abstracts

LA English

SL English

AB Methylenedioxymethamphetamine (MDMA) is structurally related to  
 methamphetamine (MA). There are many different commercially available  
 immunoassay (IA) reagents for the initial screening of amphetamine and/or  
 methamphetamine. These reagents may be employed to detect MDA/MDMA in  
 urine samples. In order to select a suitable reagent for the initial  
 screening of MDMA in urine samples, we evaluated 7 different amphetamine  
 immunoassay reagents: Emit d.a.u. Monoclonal Amphetamine/Methamphetamine;  
 Emit II Plus Monoclonal Amphetamine/Methamphetamine; Emit d.a.u.  
 Amphetamine Class; DRI Amphetamine; AxSYM Amphetamine/Methamphetamine II;  
 Abuscreen Online Amphetamine and Cedia Amphetamine/Ecstasy. We also  
 determined the cross reactivity of these reagents with MDA, MDMA, MBDB,  
 MDEA and other phenethylamines. These IA reagents were employed to screen  
 a group of 146 urine samples collected from pub patrons. Results of the  
 initial screening were compared with results obtained with gas  
 chromatography/mass spectrometry (GC/MS). Five of the IA assays were  
 acceptable for the initial screening of MDMA, except the Emit II Plus  
 Monoclonal Amphetamine/Methamphetamine reagent and Emit d.a.u. Class  
 Amphetamine reagent. Results obtained with Emit II reagent showed high  
 false negatives, while results obtained with Emit d.a.u. Class reagent  
 showed high false positives. We evaluated 5 different IA for cannabinoids.  
 Results of the initial screening of 74 urine samples collected from pub  
 patrons were compared with results obtained by GC/MS. There are 12  
 confirmed positives with GC/MS. Results obtained with DRI reagent showed  
 no false negatives, while results obtained with Emit, Abuscreen Online,  
 AxSYM and Cedia reagents have 4, 2, 3 and 4 false negatives, respectively.

CT Medical Descriptors:  
 \*immunoassay  
 \*urinalysis  
 screening  
 enzyme multiplied immunoassay technique  
 cross reaction  
 intermethod comparison  
 gas chromatography  
 mass spectrometry

laboratory diagnosis

human

controlled study

article

Drug Descriptors:

\*3,4 methylenedioxymethamphetamine

\*cannabinoid

methamphetamine

reagent

amphetamine

3,4 methylenedioxyamphetamine

**monoclonal antibody**

amphetamine derivative

n methyl 1 (3,4 methylenedioxyphenyl) 2 butanamine

n ethyl 3,4 methylenedioxyamphetamine

phenethylamine derivative

adrenergic receptor stimulating agent

central stimulant agent

designer drug

unclassified drug

RN (3,4 methylenedioxymethamphetamine) 42542-10-9;  
(methamphetamine) 28297-73-6, 51-57-0, 537-46-2, 7632-10-2; (amphetamine)  
1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7, 60-13-9,  
60-15-1; (3,4 methylenedioxyamphetamine) 4764-17-4; (n ethyl 3,4  
methylenedioxyamphetamine) 14089-52-2  
NP (1) Emit-P; (2) Emit II; (3) Emit-M; (4) DRI Amphetamine; (5) AxSym; (6)  
Abuscreen Online Amphetamine; (7) Cedia  
CO (3) Syva; (4) Synchron System; (5) Abbott; (6) Hoffmann La Roche; (7)  
Microgenics

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AN 2003447906 EMBASE

TI Drug addictions: Towards socially accepted and medically treatable  
diseases

AU Pouletty P.

CS P. Pouletty, DrugAbuse Sciences, 25954 Eden Landing Road, Hayward, CA  
94545-3816, United States. philippe@truffle-venture.com

SO Nature Reviews Drug Discovery, (2002) 1/9 (731-736).

Refs: 63

ISSN: 1474-1776 CODEN: NRDDAG

CY United Kingdom

DT Journal; Article

FS 036 Health Policy, Economics and Management

037 Drug Literature Index

038 Adverse Reactions Titles

039 Pharmacy

040 Drug Dependence, Alcohol Abuse and Alcoholism

052 Toxicology

LA English

SL English

AB What is the disease that affects more than 30 million individuals in the  
United States and Europe, is a leading cause of death and costs 2-3.5% of  
gross domestic product? The answer - alcohol abuse and drug addictions -  
still surprises many, and in general, addictions are undertreated. But  
advances in the understanding of the underlying biology and clinical  
manifestations of addictions are creating new opportunities for the  
development of novel pharmacotherapies to complement psychosocial  
interventions.



CT Medical Descriptors:  
\*drug dependence: DM, disease management  
\*drug dependence: DT, drug therapy  
\*drug dependence: ET, etiology  
United States  
cause of death  
health care cost  
alcohol abuse  
pathology  
clinical feature  
psychosocial care  
drug dependence treatment  
drug mechanism  
drug efficacy  
cost effectiveness analysis  
drug formulation  
drug delivery system  
side effect: SI, side effect  
human  
clinical trial  
article  
priority journal  
Drug Descriptors:  
alcohol  
psychedelic agent  
phencyclidine  
cocaine  
diamorphine: DT, drug therapy  
diamorphine: PD, pharmacology  
3,4 methylenedioxymethamphetamine  
opiate  
naltrexone: CT, clinical trial  
naltrexone: DT, drug therapy  
naltrexone: PR, pharmaceuticals  
naltrexone: PD, pharmacology  
naltrexone: IM, intramuscular drug administration  
naltrexone: PO, oral drug administration  
acamprosate: CT, clinical trial  
acamprosate: DT, drug therapy  
acamprosate: PD, pharmacology  
levacetylmethadol: DT, drug therapy  
levacetylmethadol: PD, pharmacology  
disulfiram: AE, adverse drug reaction  
disulfiram: DT, drug therapy  
disulfiram: PD, pharmacology  
buprenorphine: CT, clinical trial  
buprenorphine: CB, drug combination  
buprenorphine: DT, drug therapy  
buprenorphine: PD, pharmacology  
methadone: DT, drug therapy  
methadone: PD, pharmacology  
adrogolide: CT, clinical trial  
adrogolide: DT, drug therapy  
adrogolide: PD, pharmacology  
naloxone: CT, clinical trial  
naloxone: CB, drug combination  
naloxone: DT, drug therapy  
naloxone: PD, pharmacology  
drugs used in the treatment of addiction: CT, clinical trial

drugs used in the treatment of addiction: DV, drug development  
 drugs used in the treatment of addiction: DT, drug therapy  
 drugs used in the treatment of addiction: PE, pharmacoeconomics  
 ns 2359: CT, clinical trial  
 ns 2359: DT, drug therapy  
 ns 2359: PD, pharmacology  
 rpr 102681: CT, clinical trial  
 rpr 102681: DV, drug development  
 rpr 102681: DT, drug therapy  
 rpr 102681: PD, pharmacology  
 nicotine vaccine: DV, drug development  
 bp 897: CT, clinical trial  
 bp 897: DV, drug development  
 bp 897: DT, drug therapy  
 bp 897: PD, pharmacology  
 vigabatrin: DV, drug development  
 vigabatrin: PD, pharmacology  
 risperidone: DV, drug development  
 risperidone: PD, pharmacology  
 dexamphetamine: DV, drug development  
 dexamphetamine: PD, pharmacology  
 isradipine: DV, drug development  
 isradipine: PD, pharmacology  
 haloperidol: DV, drug development  
 haloperidol: PD, pharmacology  
     **monoclonal antibody: DV, drug development**  
     **polyclonal antibody: DV, drug development**  
     **digoxin antibody**  
 venom antiserum  
 unindexed drug  
 unclassified drug  
 diaphin  
 vivitrex  
 suboxone  
 berger  
 RN (alcohol) 64-17-5; (phencyclidine) 77-10-1, 956-90-1; (cocaine) 50-36-2,  
 53-21-4, 5937-29-1; (diamorphine) 1502-95-0, 561-27-3; (3,4  
 methylenedioxymethamphetamine) 42542-10-9; (opiate) 53663-61-9,  
 8002-76-4, 8008-60-4; (naltrexone) 16590-41-3, 16676-29-2; (acamprosate)  
 77337-73-6; (levacetylmethadol) 34433-66-4; (disulfiram) 97-77-8;  
 (buprenorphine) 52485-79-7, 53152-21-9; (methadone) 1095-90-5, 125-56-4,  
 23142-53-2, 297-88-1, 76-99-3; (adrogolide) 166591-11-3; (naloxone)  
 357-08-4, 465-65-6; (vigabatrin) 60643-86-9; (risperidone) 106266-06-2;  
 (dexamphetamine) 1462-73-3, 51-63-8, 51-64-9; (isradipine) 75695-93-1,  
 88977-22-4; (haloperidol) 52-86-8  
 CN (1) Campral; (2) Diaphin; (3) Campral; (4) Vivitrex; (5) Das 431; (6) Ns  
 2359; (7) Suboxone; (8) Suboxone; (9) Rpr 102681; (10) Bp 897; (11)  
 Risperdal; (12) Dexedrine; (13) Dynacirc; (14) Haldol; Revia; Trexan;  
 Antabuse; Berger  
 CO (1) Merck Lipha; (2) Diamo narcotics; (3) Forrest; (4) Alkermes; (5)  
 DrugAbuse Sciences; (6) Neurosearch; (7) Reckitt Benckiser; (8) Schering  
 Plough; (9) Aventis; (10) Bioproject; (11) Janssen; (12) Glaxo SmithKline;  
 (13) Reliant; (14) Ortho Mcneil; Bristol Myers Squibb; Eon; Mallinckrodt;  
 Mylan; Roxane; Odyssey; Watson; Eron; Barr Laboratories; Amide  
 L39 ANSWER 25 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
 on STN  
 AN 2002391619 EMBASE  
 TI Poisoning in children 5: Rare and dangerous poisons.

AU Riordan M.; Rylance G.; Berry K.  
CS Dr. K. Berry, Emergency Department, Birmingham Children's Hospital,  
Steelhouse Lane, Birmingham B4 6NH, United Kingdom.  
kathleen.berry@bhamchildrens.wmids.nhs.uk  
SO Archives of Disease in Childhood, (1 Nov 2002) 87/5 (407-410).  
Refs: 21  
ISSN: 0003-9888 CODEN: ADCHAK  
CY United Kingdom  
DT Journal; Conference Article  
FS 007 Pediatrics and Pediatric Surgery  
037 Drug Literature Index  
038 Adverse Reactions Titles  
052 Toxicology  
LA English  
SL English  
AB Management of children who have ingested  $\beta$ blockers, digoxin, oral  
hypoglycaemics, organophosphates, carbon monoxide, cyanide, isopropanol,  
ethylene glycol, methanol, Ecstasy, LSD, cocaine, nicotine, and isoniazid.  
CT Medical Descriptors:  
\*intoxication: DT, drug therapy  
\*intoxication: EP, epidemiology  
\*childhood injury: DT, drug therapy  
\*childhood injury: EP, epidemiology  
beta adrenergic receptor blocking  
hypoglycemia  
drug effect  
drug mechanism  
bradycardia  
hypotension  
nausea  
vomiting  
hyperkalemia  
heart arrhythmia  
insect control  
risk assessment  
metabolic acidosis  
cyanide poisoning  
household  
drug abuse  
methemoglobinemia: SI, side effect  
headache: SI, side effect  
vasodilatation  
muscle cramp: SI, side effect  
arthralgia: SI, side effect  
anaphylaxis: SI, side effect  
human  
child  
conference paper  
priority journal  
Drug Descriptors:  
\*beta adrenergic receptor blocking agent: TO, drug toxicity  
\*digoxin: TO, drug toxicity  
\*oral antidiabetic agent: TO, drug toxicity  
\*organophosphate insecticide: TO, drug toxicity  
\*carbon monoxide: TO, drug toxicity  
\*cyanide: TO, drug toxicity  
2 propanol: TO, drug toxicity  
ethylene glycol: TO, drug toxicity  
methanol: TO, drug toxicity

3,4 methylenedioxymethamphetamine: TO, drug toxicity  
 lysergide: TO, drug toxicity  
 cocaine: TO, drug toxicity  
 nicotine: TO, drug toxicity  
 isoniazid: TO, drug toxicity  
 activated carbon: PD, pharmacology  
 atropine: DT, drug therapy  
 lidocaine: DT, drug therapy  
 amiodarone: DT, drug therapy  
 phenytoin: DT, drug therapy  
**digoxin antibody: DT, drug therapy**  
 sulfonylurea derivative: TO, drug toxicity  
 octreotide: TO, drug toxicity  
 metformin: TO, drug toxicity  
 acarbose: TO, drug toxicity  
 repaglinide: TO, drug toxicity  
 glucose: DT, drug therapy  
 glucose: PD, pharmacology  
 pralidoxime: DT, drug therapy  
 amyl nitrite: AE, adverse drug reaction  
 amyl nitrite: DT, drug therapy  
 sodium thiosulfate: AE, adverse drug reaction  
 sodium thiosulfate: DT, drug therapy  
 unindexed drug  
 RN (digoxin) 20830-75-5, 57285-89-9; (carbon monoxide) 630-08-0; (cyanide) 57-12-5; (2 propanol) 67-63-0; (ethylene glycol) 107-21-1; (methanol) 67-56-1; (3,4 methylenedioxymethamphetamine) **42542-10-9**; (lysergide) 50-37-3; (cocaine) 50-36-2, 53-21-4, 5937-29-1; (nicotine) 54-11-5; (isoniazid) 54-85-3, 62229-51-0, 65979-32-0; (activated carbon) 64365-11-3, 82228-96-4; (atropine) 51-55-8, 55-48-1; (lidocaine) 137-58-6, 24847-67-4, 56934-02-2, 73-78-9; (amiodarone) 1951-25-3, 19774-82-4, 62067-87-2; (phenytoin) 57-41-0, 630-93-3; (octreotide) 83150-76-9; (metformin) 1115-70-4, 657-24-9; (acarbose) 56180-94-0; (repaglinide) 135062-02-1; (glucose) 50-99-7, 84778-64-3; (pralidoxime) 6735-59-7; (amyl nitrite) 463-04-7; (sodium thiosulfate) 10102-17-7, 7772-98-7, 8052-33-3  
 L39 ANSWER **(26 OF 51)** EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
 on STN  
 AN 2002200339 EMBASE  
 TI Single LDL apheresis improves serum remnant-like particle-cholesterol, C-reactive protein, and malondialdehyde-modified-low-density lipoprotein concentrations in Japanese hypercholesterolemic subjects.  
 AU Kobayashi J.; Katsube S.; Shimoda M.; Furuhashi K.; Kitano S.; Masuda M.; Maruyama T.; Shinomiya M.  
 CS J. Kobayashi, Department of Internal Medicine, Chibaken Saiseikai Narashino Hosp., 1-1-1 Izumi Chou, Narashino, Chiba 275-0006, Japan. maryland95@angel.ne.jp  
 SO Clinica Chimica Acta, (2002) 321/1-2 (107-112).  
 Refs: 34  
 ISSN: 0009-8981 CODEN: CCATAR  
 PUI S 0009-8981(02)00103-1  
 CY Netherlands  
 DT Journal; Article  
 FS 003 Endocrinology  
 025 Hematology  
 029 Clinical Biochemistry  
 LA English  
 SL English  
 AB Background: Single low-density lipoprotein (LDL)-apheresis may affect

serum remnant-like particle-cholesterol (RLP-C), C-reactive protein (CRP) and malondialdehyde-modified (MDA)-LDL concentrations. Subjects and methods: Six subjects with hypercholesterolemia (five men, one woman) were involved in this study. Mean age and body mass index of the study subjects were  $58 \pm 3.1$  years and  $23.6 \pm 2.07$  kg/m<sup>2</sup>, respectively. Five of the subjects were diagnosed as heterozygous familial hypercholesterolemia (FH) because of having both marked hypercholesterolemia and Achilles tendon xanthomas. LDL apheresis was introduced and continued using a dextran sulfate cellulose adsorption column technique every 2 weeks. Serum RLP-C was measured using an immunoaffinity mixed gel containing anti-apolipoprotein A-I and anti-apolipoprotein B monoclonal **antibody**. Serum CRP was measured by latex-enhanced assay. Serum MDA-LDL was measured using monoclonal **antibody** against MDA-LDL (ML25). Results: Combined treatment in the steady state pre-treatment yielded a total, LDL- and HDL-cholesterol, and TG concentrations of  $5.39 \pm 0.81$ ,  $3.82 \pm 1.03$ ,  $1.24 \pm 0.29$  and  $0.92 \pm 0.43$  mmol/l, respectively, and a post-treatment total, LDL- and HDL-cholesterol and TG concentrations of  $2.79 \pm 0.37$  (-48%,  $p < 0.001$ ),  $1.63 \pm 0.29$  (-57%,  $p < 0.001$ ),  $1.18 \pm 0.26$  (-5%, NS) and  $0.23 \pm 0.11$  mmol/l (-75%,  $p < 0.001$ ), respectively. Serum RLP-C and CRP concentrations showed a substantial reduction [-73%,  $p < 0.05$  for RLP-C; -56%,  $p < 0.05$  for CRP] during this procedure. In addition, LDL apheresis was found to also cause a marked reduction in serum MDA-LDL concentration (-61%,  $p < 0.05$ ). Conclusion: LDL-apheresis is an effective treatment for removing atherogenic factors RLP-C, CRP and MDA-LDL from sera. .COPYRG. 2002 Published by Elsevier Science B.V.

## CT Medical Descriptors:

\*familial hypercholesterolemia: DI, diagnosis

Japan

concentration response

body mass

heterozygosity

apheresis

achilles tendon

**antibody affinity**

adsorption chromatography

reversed phase liquid chromatography

bioassay

steady state

reduction

diagnostic procedure

serum

human

male

female

clinical article

controlled study

adult

article

priority journal

Drug Descriptors:

\*low density lipoprotein: EC, endogenous compound

\*C reactive protein: EC, endogenous compound

\*malonaldehyde

dextran sulfate

cellulose: EC, endogenous compound

latex

**monoclonal antibody: EC, endogenous compound**

3,4 methylenedioxymphetamine

high density lipoprotein cholesterol: EC, endogenous compound  
 apolipoprotein A1: EC, endogenous compound  
 apolipoprotein B: EC, endogenous compound

RN (C reactive protein) 9007-41-4; (malonaldehyde) 542-78-9; (dextran sulfate) 9011-18-1, 9042-14-2; (cellulose) 61991-22-8, 68073-05-2, 9004-34-6; (3,4 methylenedioxymphetamine) **4764-17-4**

L39 ANSWER **(27)** OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
 on STN

AN 2002305501 EMBASE

TI Normal breast epithelial cells induce apoptosis of breast cancer cells via Fas signaling.

AU Toillon R.-A.; Descamps S.; Adriaenssens E.; Ricort J.-M.; Bernard D.; Boilly B.; Le Bourhis X.

CS X. Le Bourhis, Lab. Biol. du Dev. (UPRES, EA 1033), SN3, Universite Sci./Technologies Lille, 59655 Villeneuve d'Ascq, Cedex, France.  
 xuefen.lebourhis@univ-lille1.fr

SO Experimental Cell Research, (2002) 275/1 (31-43).

Refs: 53

ISSN: 0014-4827 CODEN: ECREAL

CY United States

DT Journal; Article

FS 016 Cancer

029 Clinical Biochemistry

037 Drug Literature Index

LA English

SL English

AB Fas/Fas ligand (Fas L) death pathway is an important mediator of apoptosis. Deregulation of Fas pathway is reported to be involved in the immune escape of breast cancer and the resistance to anti-cancer drugs. In this study, we demonstrated that conditioned medium by normal breast epithelial cells (NBEC-CM) induced apoptosis of MCF-7 and T-47D Fas-sensitive cells but had no effect on MDA-MB-231 Fas-resistant cells. Inhibition of PI3 kinase or NF- $\kappa$ B by specific inhibitors or transient transfections restored the sensitivity of MDA-MB-231 cells to NBEC-induced apoptosis. Moreover, the constitutive activation of NF- $\kappa$ B was controlled by PI3 kinase because inhibition of PI3 kinase reduced NF- $\kappa$ B activity. Inducible activation of NF- $\kappa$ B rendered MCF-7 cells resistant to NBEC-CM- and Fas agonist **antibody**-triggered apoptosis. Therefore, constitutive or inducible activation of PI3 kinase and/or NF- $\kappa$ B in breast cancer cells rendered them resistant to NBEC-triggered apoptosis. In addition, Fas neutralizing **antibody** and dominant negative Fas abolished NBEC-triggered apoptosis. Western blot and confocal microscopy analysis showed an increase of membrane Fas/Fas L when cells were induced into apoptosis by NBEC-CM. Taken together, these data show that NBEC induced apoptosis in breast cancer cells via Fas signaling. .COPYRGT. 2002 Elsevier Science (USA).

CT Medical Descriptors:

\*breast carcinoma

\*breast epithelium

\*apoptosis

signal transduction

cancer cell

enzyme inhibition

reduction

enzyme activity

Western blotting

confocal microscopy

analytic method  
human  
controlled study  
human cell  
article  
priority journal  
Drug Descriptors:

**\*Fas antibody: EC, endogenous compound**

3,4 methylenedioxyamphetamine  
immunoglobulin enhancer binding protein: EC, endogenous compound  
protein kinase: EC, endogenous compound

**neutralizing antibody: EC, endogenous compound**

2 morpholino 8 phenylchromone

RN (3,4 methylenedioxyamphetamine) 4764-17-4; (protein kinase)  
9026-43-1; (2 morpholino 8 phenylchromone) 154447-36-6

CN Ly 294002

L39 ANSWER 28 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STM

AN 2001277834 EMBASE

TI Liver transplantation for ecstasy-induced fulminant hepatic failure.

AU De Carlis L.; De Gasperi A.; Slim A.O.; Giacomoni A.; Corti A.; Mazza E.;  
Di Benedetto F.; Lauterio A.; Arcieri K.; Maione G.; Rondinara G.F.; Forti  
D.

CS Dr. L. De Carlis, Divisione Chirurgia Generale, Ospedale Niguarda, 20162  
Milan, Italy

SO Transplantation Proceedings, (2001) 33/5 (2743-2744).

Refs: 6

ISSN: 0041-1345 CODEN: TRPPA8

PUI S 0041-1345(01)02176-5

CY United States

DT Journal; Conference Article

FS 026 Immunology, Serology and Transplantation

037 Drug Literature Index

038 Adverse Reactions Titles

048 Gastroenterology

LA English

CT Medical Descriptors:

\*liver transplantation

\*liver failure: SU, surgery

\*liver failure: SI, side effect

graft survival

liver injury: SI, side effect

liver function

graft rejection: PC, prevention

graft rejection: DT, drug therapy

anemia: SI, side effect

brain disease

histopathology

human

female

case report

adolescent

conference paper

priority journal

Drug Descriptors:

\*3,4 methylenedioxymethamphetamine: AE, adverse drug reaction

azathioprine: DT, drug therapy

tsukubaenolide: DT, drug therapy

tsukubaenolide: AE, adverse drug reaction  
cyclosporin A: DT, drug therapy  
steroid: DT, drug therapy  
**thymocyte antibody: DT, drug therapy**

RN (3,4 methylenedioxymethamphetamine) 42542-10-9; (azathioprine)  
446-86-6; (tsukubaenolide) 104987-11-3; (cyclosporin A) 59865-13-3,  
63798-73-2

CN Neoral

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AN 2002234390 EMBASE

TI Evolution pattern of auto-**antibodies** against oxidized  
low-density lipoproteins in renal transplant recipients.

AU Kandoussi A.-M.; Glowacki F.; Duriez P.; Tacquet A.; Fruchart J.-C.; Noel  
C.

CS A.-M. Kandoussi, Institut Pasteur de Lille, Inserm U 325, POB 245, F-59019  
Lille Cedex, France. Abdelmejid.Kandoussi@pasteur-lille.fr

SO Nephron, (2001) 89/3 (303-308).  
Refs: 30  
ISSN: 0028-2766 CODEN: NPRNAY

CY Switzerland

DT Journal; Article

FS 028 Urology and Nephrology  
029 Clinical Biochemistry

LA English

SL English

AB An increased degree of oxidative stress in renal transplant recipients and  
a possible role of ciclosporin A (Cs-A) immunosuppressive therapy in this  
process have already been described. However, prospective data using in  
vivo markers and the influence of Cs-A in the oxidizability of low-density  
lipoprotein (LDL) are scarce. We aimed at investigating in this  
prospective study the evolution pattern of auto-**antibodies**  
directed against malondialdehyde-modified LDL (MDA-LDL) and  
Cu(2+)-oxidized LDL in 28 stable renal transplant recipients on Cs-A  
immunosuppressive therapy before and after 3 successive years of renal  
transplantation. Also, the effect of enrichment of LDL with Cs-A on the  
susceptibility of LDL to in vitro oxidation was tested. The results showed  
a significant increase of both auto-**antibody** titres (MDA-LDL and  
Cu(2+)-oxidized LDL) after 1 year, and the values remained high during the  
2nd and the 3rd year following transplantation. The yearly mean relative  
variations of auto-**antibodies** against MDA-LDL and  
Cu(2+)-oxidized LDL during the follow-up period were 133, 149, and 137%,  
and 111, 115, and 117%, respectively. A significant correlation was  
observed during the 1st year between Cs-A trough blood level and  
Cu(2+)-oxidized LDL auto-**antibody**:  $r = 0.04$  ( $p = 0.046$ ).  
Incorporation of Cs-A into LDL from healthy volunteers showed no changes  
during the lag phase in comparison with Cs-A-free LDL, indicating that  
Cs-A had no effect on in vitro LDL oxidizability. Our results suggest that  
Cs-A may be involved earlier in the LDL oxidation, but the mechanism by  
which it acts is still unclear. Copyright .COPYRGT. 2001 S. Karger AG,  
Basel.

CT Medical Descriptors:  
\*kidney transplantation  
molecular evolution  
kidney graft  
recipient  
prospective study  
oxidation



immunosuppressive treatment

**antibody titer**

in vitro study

diagnostic test

diagnostic value

follow up

blood level

volunteer

regulatory mechanism

human

male

female

clinical article

controlled study

adolescent

adult

article

priority journal

Drug Descriptors:

**\*autoantibody: EC, endogenous compound**

\*low density lipoprotein: EC, endogenous compound

3,4 methylenedioxymphetamine

copper ion: EC, endogenous compound

RN (3,4 methylenedioxymphetamine) 4764-17-4

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AN 2000013857 EMBASE

TI Hair analysis by immunological methods from the beginning to 2000.

AU Spiehler V.

CS V. Spiehler, 422 Tustin, Newport Beach, CA 92663, United States

SO Forensic Science International, (2000) 107/1-3 (249-259).

Refs: 24

ISSN: 0379-0738 CODEN: FSINDR

PUI S 0379-0738(99)00168-1

CY Ireland

DT Journal; Conference Article

FS 026 Immunology, Serology and Transplantation

030 Pharmacology

037 Drug Literature Index

040 Drug Dependence, Alcohol Abuse and Alcoholism

049 Forensic Science Abstracts

LA English

SL English

AB Immunoassays for hair testing must satisfy three requirements: (1) They must have cross-reactivity with parent drug and lipophilic metabolites actually found in hair (2) they must not experience interference from the dissolved hair matrix and (3) they must be titered for cutoffs appropriate to the drug concentrations found in hair. Because the analytes found in hair after drug use are generally the parent drug or its lipophilic metabolites, immunoassays developed and intended for urine testing are not suitable for hair. Immunoassays whose **antibodies** are bound to a solid support, such as coated-tube radioimmunoassay or coated-plate ELISA tests, experience less matrix interference than those which use other means of separation of bound and free fractions. Homogenous assays are not suitable for hair testing because the hair matrix frequently interferes in the detection of the signal. Historically radioimmunoassays for drugs of abuse were first used for detecting drugs in hair. Currently ELISAs and coated-plate 96 well microplate EIAs are employed for screening hair

digests or extracts for drugs. The optimum cutoffs for immunoassays for drugs in hair should be chosen based on the analyte concentration which produces the fewest false positive or false negative results when applied to tests of hair from known users and non-users of drugs. A hair immunoassay test at these cutoffs should have a sensitivity and specificity of better than 90%. The predictive value of the test will depend on the prevalence of drug use in the tested population. Cutoffs or decision thresholds for immunoassays used for screening for drugs should not be at the limit of detection of the assay because that produces a very large incidence of false positives. Because immunoassays are ligand-binding assays, they have a short range of linearity with low precision at both ends of the range. In the future, immunoassays will continue to be used for screening hair and other matrices for drugs of abuse because they provide rapid, inexpensive automated procedures for separating negative specimens from those which are suspected of containing drugs. For forensic purposes, all positive results must be confirmed by an independent analysis using a procedure based on a different property of the analyte. An immunoassay test should not be confirmed by a second immunoassay test but by a chromatographic test performed on a different dissolved or extracted aliquot of the original specimen. Copyright (C) 2000 Elsevier Science Ireland Ltd.

## CT Medical Descriptors:

- \*hair analysis
- \*immunoassay
- radioimmunoassay
- enzyme immunoassay
- drug determination
- enzyme linked immunosorbent assay
- drug screening
- body fluid
- cross reaction
- human
- conference paper
- priority journal

## Drug Descriptors:

- \*cocaine: AN, drug analysis
- \*diamorphine: AN, drug analysis
- \*barbituric acid derivative: AN, drug analysis
- \*amphetamine: AN, drug analysis
- \*cannabis: AN, drug analysis
- \*benzodiazepine derivative: AN, drug analysis
- morphine: AN, drug analysis
- benzoylecgonine: AN, drug analysis
- cyanamide: AN, drug analysis
- amphetamine derivative: AN, drug analysis
- 3,4 methylenedioxymethamphetamine: AN, drug analysis
- phentermine: AN, drug analysis
- homococaine: AN, drug analysis
- oxazepam: AN, drug analysis
- butalbital: AN, drug analysis
- pseudoephedrine: AN, drug analysis
- secobarbital: AN, drug analysis
- phenobarbital: AN, drug analysis
- temazepam: AN, drug analysis
- amobarbital: AN, drug analysis
- secbutabarbital: AN, drug analysis
- chlordiazepoxide: AN, drug analysis
- diazepam: AN, drug analysis
- unindexed drug

flunitrazepam: AN, drug analysis

flurazepam: AN, drug analysis

clonazepam: AN, drug analysis

clobazam: AN, drug analysis

RN (cocaine) 50-36-2, 53-21-4, 5937-29-1; (diamorphine) 1502-95-0, 561-27-3; (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7, 60-13-9, 60-15-1; (cannabis) 8001-45-4, 8063-14-7; (morphine) 52-26-6, 57-27-2; (benzoylecgonine) 519-09-5; (cyanamide) 151-51-9, 420-04-2; (3,4 methylenedioxymethamphetamine) 42542-10-9; (phentermine) 1197-21-3, 122-09-8; (homococaine) 529-38-4; (oxazepam) 604-75-1; (butalbital) 51005-25-5, 77-26-9; (pseudoephedrine) 345-78-8, 7460-12-0, 90-82-4; (secobarbital) 309-43-3, 76-73-3; (phenobarbital) 50-06-6, 57-30-7, 8028-68-0; (temazepam) 846-50-4; (amobarbital) 57-43-2, 64-43-7; (secbutabarbital) 125-40-6, 143-81-7; (chlordiazepoxide) 438-41-5, 58-25-3; (diazepam) 439-14-5; (flunitrazepam) 1622-62-4; (flurazepam) 1172-18-5, 17617-23-1; (clonazepam) 1622-61-3; (clobazam) 22316-47-8

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AN 2000414779 EMBASE

TI Protein phosphorylation cascades associated with methamphetamine-induced glial activation.

AU Hebert M.A.; O'Callaghan J.P.

CS Dr. J.P. O'Callaghan, Ctrs. for Dis. Control/Prevention, NIOSH, 1095 Willowdale Road, Morgantown, WV 26505-2888, United States. jdo5@cdc.gov

SO Annals of the New York Academy of Sciences, (2000) 914/- (238-262).

Refs: 179

ISSN: 0077-8923 CODEN: ANYAA

CY United States

DT Journal; Article

FS 008 Neurology and Neurosurgery

029 Clinical Biochemistry

037 Drug Literature Index

052 Toxicology

LA English

SL English

AB Reactive gliosis is the most prominent response to diverse forms of central nervous system (CNS) injury. The signaling events that mediate this characteristic response to neural injury are under intense investigation. Several studies have demonstrated the activation of phosphoproteins within the mitogen-activated protein kinase (MAPK) and Janus kinase (JAK) pathways following neural insult. These signaling pathways may be involved or responsible for the glial response following injury, by virtue of their ability to phosphorylate and dynamically regulate the activity of various transcription factors. This study sought to delineate, in vivo, the relative contribution of MAPK- and JAK-signaling components to reactive gliosis as measured by induction of glialfibrillary acidic protein (GFAP), following chemical-induced neural damage. At time points (6, 24, and 48 h) following methamphetamine (METH, 10 mg/kg x 4, s.c.) administration, female C57BL/6J mice were sacrificed by focused microwave irradiation, a technique that preserves steady-state phosphorylation. Striatal (target) and nontarget (hippocampus) homogenates were assayed for METH-induced changes in markers of dopamine (DA) neuron integrity as well as differences in the levels of activated phosphoproteins. GFAP upregulation occurred as early as 6 h, reaching a threefold induction 48 h following METH exposure. Neurotoxicant-induced reductions in striatal levels of DA and tyrosine hydroxylase (TH) paralleled the temporal profile of GFAP induction. Blots of striatal homogenates, probed with phosphorylation-state specific antibodies

, demonstrated significant changes in activated forms of extracellular-regulated kinase 1/2 (ERK 1/2), c-jun N-terminal kinase/stress-activated protein kinase (JNK/SAPK), MAPK/ERK kinase (MEK1/2), 70-kDa ribosomal S6 kinase (p70 S6), cAMP responsive element binding protein (CREB), and signal transducer and activator of transcription 3 (STAT3). MAPK-related phosphoproteins exhibited an activation profile that peaked at 6 h, remained significantly increased at 24, and fell to baseline levels 48 h following neurotoxicant treatment. The ribosomal S6 kinase was enhanced over 60% for all time points examined. Immunoreactivity profiles for the transcription factors CREB and STAT3 indicated maximal increases in phosphorylation occurring at 24 h, and measuring greater than 2- or 17-fold, respectively. Specific signaling events were found to occur with a time course suggestive of their involvement in the gliotic response. The toxicant-induced activation of these growth-associated signaling cascades suggests that these pathways could be obligatory for the triggering and/or persistence of reactive gliosis and may therefore serve as potential targets for modulation of glial response to neural damage.

## CT Medical Descriptors:

\*neurotoxicity: ET, etiology  
 \*protein phosphorylation  
 central nervous system  
 dopaminergic system  
 enzyme activation  
 signal transduction  
 genetic transcription  
 gliosis  
 immunoblotting  
 high performance liquid chromatography  
 nonhuman  
 female  
 mouse  
 animal experiment  
 controlled study  
 animal tissue  
 article

## Drug Descriptors:

\*3,4 methylenedioxymethamphetamine: DO, drug dose  
 \*3,4 methylenedioxymethamphetamine: TO, drug toxicity  
 \*3,4 methylenedioxymethamphetamine: SC, subcutaneous drug administration  
 mitogen activated protein kinase  
 STAT3 protein  
 glial fibrillary acidic protein  
 phosphoprotein  
 dopamine

RN (3,4 methylenedioxymethamphetamine) 42542-10-9; (mitogen  
 activated protein kinase) 142243-02-5; (dopamine) 51-61-6, 62-31-7  
 CO Sigma (United States)

L39 ANSWER 32 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
 on STN  
 AN 2000013851 EMBASE  
 TI Analysis of LSD in human body fluids and hair samples applying ImmunElute  
 columns.  
 AU Rohrich J.; Zornitlein S.; Becker J.  
 CS J. Rohrich, Institut für Rechtsmedizin, Johannes Gutenberg-University, Am  
 Pulverturm 3, D-55131 Mainz, Germany  
 SO Forensic Science International, (2000) 107/1-3 (181-190).  
 Refs: 13

ISSN: 0379-0738 CODEN: FSINDR  
 PUI S 0379-0738(99)00162-0  
 CY Ireland  
 DT Journal; Conference Article  
 FS 026 Immunology, Serology and Transplantation  
 030 Pharmacology  
 037 Drug Literature Index  
 040 Drug Dependence, Alcohol Abuse and Alcoholism  
 049 Forensic Science Abstracts  
 LA English  
 SL English  
 AB Immunoaffinity extraction units (LSD ImmunElute(TM)) are commercially available for the analysis of lysergic acid diethylamide (LSD) in urine. The ImmunElute resin contains immobilized monoclonal **antibodies** to LSD. We applied the ImmunElute procedure to serum and also to human hair samples. For hair analysis the samples were first extracted with methanol under sonication. The extracts were then purified using the ImmunElute resin. LSD analysis was carried out with HPLC and fluorescence detection. The immunoaffinity extraction provides highly purified extracts for chromatographic analysis. The limit of detection (signal-to-noise ratio=3) has been determined to be <50 pg regardless of which sample material was used. The procedure was applied to authentic hair samples from drug abusers (n=11). One of these samples tested positive with an amount of 110 pg LSD in 112 mg extracted hair corresponding to a concentration of 1 pg/mg. Copyright (C) 2000 Elsevier Science Ireland Ltd.  
 CT Medical Descriptors:  
 \*hair analysis  
 \*body fluid  
 \*drug determination  
 high performance liquid chromatography  
 extraction  
     **antibody affinity**  
 analytic method  
 immunoaffinity chromatography  
 gas chromatography  
 mass spectrometry  
 human  
 clinical article  
 human tissue  
 conference paper  
 priority journal  
 Drug Descriptors:  
 \*lysergide: AN, drug analysis  
 resin  
 opiate: AN, drug analysis  
 3,4 methylenedioxyamphetamine: AN, drug analysis  
 cocaine: AN, drug analysis  
 amphetamine derivative: AN, drug analysis  
 dihydrocodeine: AN, drug analysis  
 amphetamine: AN, drug analysis  
 3,4 methylenedioxymethamphetamine: AN, drug analysis  
 morphine: AN, drug analysis  
 codeine: AN, drug analysis  
 diamorphine: AN, drug analysis  
 RN (lysergide) 50-37-3; (opiate) 53663-61-9, 8002-76-4, 8008-60-4; (3,4 methylenedioxyamphetamine) **4764-17-4**; (cocaine) 50-36-2, 53-21-4, 5937-29-1; (dihydrocodeine) 125-28-0, 24204-13-5, 5965-13-9; (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7, 60-13-9, 60-15-1; (3,4 methylenedioxymethamphetamine) **42542-10-9**

; (morphine) 52-26-6, 57-27-2; (codeine) 76-57-3; (diamorphine) 1502-95-0, 561-27-3

NP LSD ImmunElute

L39 ANSWER 33 OF 51 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.  
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AN 1998397605 EMBASE

TI Validation of an automated microplate enzyme immunoassay for screening of postmortem blood for drugs of abuse.

AU Spiehler V.R.; Collison I.B.; Sedgwick P.R.; Perez S.L.; Le S.D.; Farnin D.A.

CS V.R. Spiehler, Spiehler and Associates, Newport Beach, CA, United States

SO Journal of Analytical Toxicology, (1998) 22/7 (573-579).

Refs: 16

ISSN: 0146-4760 CODEN: JATOD3

CY United States

DT Journal; Article

FS 040 Drug Dependence, Alcohol Abuse and Alcoholism

052 Toxicology

LA English

SL English

AB The objective of this study was to compare the sensitivity and specificity of an enzyme immunoassay employing **antibodies** bound to a microtiter plate (MPEIA) with those of two radioimmunoassays for screening postmortem blood from selected coroner's cases for drugs of abuse. The radioimmunoassays were a coated-tube radioimmunoassay (CTRIA) and a double **antibody** radioimmunoassay (DARIA). Specimens consisted of 260 postmortem blood specimens from coroner's cases. Immunoassay results (positive or negative) were compared with confirmed results on those cases by gas chromatography-mass spectrometry, alone or in combination with gas-liquid chromatography using either a nitrogen-phosphorus or flame-ionization detector. Sensitivity was calculated as the true-positive rate using chromatographic confirmation as the reference standard. Specificity was calculated as the true-negative rate. Sensitivity and specificity were calculated for 5-7 potential cutoff concentrations for the drug classes opiates, amphetamines, cocaine and metabolites, and barbiturates. For opiates, the sensitivity and specificity were 99% and 93%, respectively, for the MPEIA at a cutoff of 20-ng/mL morphine, compared with 94% and 96% for the CTRIA at a cutoff of 5-ng/mL morphine and >99% and 96% for the DARIA at 20- ng/mL morphine. For cocaine and metabolites, the sensitivity and specificity were 96% and 93%, respectively, for the MPEIA at 50-ng/mL benzoylecgonine, compared with 93% and 96% for CTRIA at 50-ng/mL benzoylecgonine and 98% and 97% for the DARIA at 50-ng/mL benzoylecgonine. For amphetamines, the sensitivity and specificity were >99% and 91%, respectively, for the MPEIA at 25-ng/mL methamphetamine, compared with 93% and 86% for the CTRIA at 25- ng/mL methamphetamine and 83% and 89% for the DARIA at 50-ng/mL methamphetamine. For barbiturates, the sensitivity and specificity were >99% and 92%, respectively, for the MPEIA at 50-ng/mL secobarbital, compared with 91% and 87% for the CTRIA at 500-ng/mL secobarbital and 79% and 95% for the DARIA at a cutoff of 1000-ng/mL phenobarbital.

CT Medical Descriptors:

\*enzyme immunoassay

\*drug abuse

**antibody detection**

validation process

radioimmunoassay

gas chromatography

mass spectrometry

automation  
receiver operating characteristic  
cross reaction  
human  
human cell  
article

## Drug Descriptors:

\*opiate: TO, drug toxicity  
\*cocaine: TO, drug toxicity  
\*amphetamine: TO, drug toxicity  
\*barbituric acid derivative: TO, drug toxicity  
benzoylecgonine: TO, drug toxicity  
methamphetamine: TO, drug toxicity  
secobarbital: TO, drug toxicity  
phenobarbital: TO, drug toxicity  
homococaine: TO, drug toxicity  
diamorphine: TO, drug toxicity  
3,4 methylenedioxymethamphetamine: TO, drug toxicity  
ephedrine: TO, drug toxicity  
butalbital: TO, drug toxicity  
amobarbital: TO, drug toxicity  
pseudoephedrine: TO, drug toxicity

- RN (opiate) 53663-61-9, 8002-76-4, 8008-60-4; (cocaine) 50-36-2, 53-21-4, 5937-29-1; (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7, 60-13-9, 60-15-1; (benzoylecgonine) 519-09-5; (methamphetamine) 28297-73-6, 51-57-0, 537-46-2, 7632-10-2; (secobarbital) 309-43-3, 76-73-3; (phenobarbital) 50-06-6, 57-30-7, 8028-68-0; (homococaine) 529-38-4; (diamorphine) 1502-95-0, 561-27-3; (3,4 methylenedioxymethamphetamine) 42542-10-9; (ephedrine) 299-42-3, 50-98-6; (butalbital) 51005-25-5, 77-26-9; (amobarbital) 57-43-2, 64-43-7; (pseudoephedrine) 345-78-8, 7460-12-0, 90-82-4
- NP coated tube radioimmunoassay; **double antibody radioimmunoassay**

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AN 1998336098 EMBASE

TI Amphetamines in hair by enzyme-linked immunosorbent assay.

AU Sweeney S.A.; Kelly R.C.; Bourland J.A.; Johnson T.; Brown W.C.; Lee H.; Lewis E.

CS R.C. Kelly, Associated Pathologists Laboratories, 4230 S. Burnham Avenue, Las Vegas, NV 89119, United States

SO Journal of Analytical Toxicology, (1998) 22/6 (418-424).

Refs: 23

ISSN: 0146-4760 CODEN: JATOD3

CY United States

DT Journal; Article

FS 005 General Pathology and Pathological Anatomy

040 Drug Dependence, Alcohol Abuse and Alcoholism

LA English

SL English

AB Human hair was collected from the occipital crown region of the head from several subjects; these hair samples were presumptively positive for amphetamines by a previously evaluated immunoassay. Hair was washed briefly with methanol to remove external contamination, then extracted with hot methanol for 2 h to recover the drugs. The extracts were evaporated to dryness, reconstituted in buffer, and analyzed using a new enzyme-linked immunosorbent assay (ELISA) technique adapted for the detection of amphetamines in hair. Gas chromatography-mass spectrometry was used as the reference technique. Cross-reactivity of several related

compounds was evaluated by equating the inverse of the ligand concentration at 50% **antibody** binding to the affinity constant for each compound. The ratio of a compound's affinity constant to that for d-methamphetamine was used to derive percent cross-reactivity. These experiments yielded values of 30.8% for d- amphetamine, 7.4% for l-methamphetamine, 4.3% for phentermine, 2.9% for/- amphetamine, and <1% for ephedrine, methylenedioxyamphetamine, and methylenedioxymethamphetamine. Cross-reactivity of unrelated compounds was found to be non-existent. The optimum cutoff concentration was determined by receiver operating characteristic curve analysis to be 300 pg/mg and the observed limit of detection was 60 pg/mg. Intra-assay precision at 300 pg/mg was 3.3% (coefficient of variation, CV), and the interassay CV was 10.5%. The sensitivity and specificity of the method were 83% and 92%, respectively.

## CT Medical Descriptors:

\*hair  
 \*enzyme linked immunosorbent assay  
 gas chromatography  
 mass spectrometry  
 cross reaction  
 receiver operating characteristic  
 human  
 controlled study  
 human tissue  
 article  
 Drug Descriptors:  
 \*amphetamine derivative  
 \*methamphetamine  
 \*dexamphetamine  
 \*amphetamine  
 \*3,4 methylenedioxyamphetamine  
 methanol  
**antibody**  
 ligand  
 phentermine  
 ephedrine

RN (methamphetamine) 28297-73-6, 51-57-0, 537-46-2, 7632-10-2;  
 (dexamphetamine) 1462-73-3, 51-63-8, 51-64-9; (amphetamine) 1200-47-1,  
 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7, 60-13-9, 60-15-1; (3,4  
 methylenedioxyamphetamine) **4764-17-4**; (methanol) 67-56-1;  
 (phentermine) 1197-21-3, 122-09-8; (ephedrine) 299-42-3, 50-98-6

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AN 1999003994 EMBASE

TI Serotonin transporters are located on the axons beyond the synaptic  
 junctions: Anatomical and functional evidence.

AU Zhou F.C.; Tao-Cheng J.-H.; Segu L.; Patel T.; Wang Y.

CS F.C. Zhou, Department of Anatomy, Medical Neurobiology Program, Indiana  
 Univ. School of Medicine, 635 Barnhill Drive, Indianapolis, IN 46202,  
 United States. imcel100@iupui.edu

SO Brain Research, (14 Sep 1998) 805/1-2 (241-254).

Refs: 72

ISSN: 0006-8993 CODEN: BRREAP

PUI S 0006-8993(98)00691-X

CY Netherlands

DT Journal; Article

FS 001 Anatomy, Anthropology, Embryology and Histology

LA English



SL English  
AB The serotonin (5-HT) transporter (5-HTT) is known to play a role in depression and many 5-HT related diseases, and is the target site for drugs of abuse, such as cocaine, MDMA, and methamphetamine. The major role of the 5-HTT has long been considered to be to inactivate serotonin transmission through the elimination of serotonin at release sites. However, immunocytochemistry using an **antibody** against the N-terminal of the 5-HTT at the light microscopic (LM) level indicates that the 5-HTT is associated not only with 5-HT varicosities but also with axons. Electron microscopy (EM) reveals that the majority of the 5-HTTs exist on the axolemma outside the synaptic junctions. In studying whether axonal 5-HTTs are involved in the uptake of 5-HT, we found with autoradiography that [3H]citalopram bound to all major 5-HT fibers, not only in the terminal regions, but also in 5-HT axonal bundles such as the cingulum bundle and medial forebrain bundle. Furthermore, voltammetry recordings indicated that serotonin axonal bundles were actively engaged in high affinity serotonin uptake. The evidence indicates that 5-HTTs on 5-HT axons away from the synapse are likely to be functional in a manner similar to the terminal 5-HTT for serotonin uptake. It also suggests that the role of the 5-HTT may not only be for the termination of synaptic transmission, but also for the regulation of 5-HT through extrasynaptic (volume) transmission. Our findings may also impact the understanding of the sites of action of selective serotonin reuptake inhibitors and drug entry into serotonin neurons via the numerous axonal sites.

CT Medical Descriptors:  
\*synaptic transmission  
\*serotonin uptake  
\*serotoninergetic nerve  
\*anatomy  
serotonin release  
electron microscopy  
cingulate gyrus  
medial forebrain bundle  
immunocytochemistry  
potentiometry  
autoradiography  
nonhuman  
male  
rat  
animal experiment  
controlled study  
animal tissue  
article  
priority journal  
Drug Descriptors:  
\*serotonin transporter: EC, endogenous compound  
cocaine  
3,4 methylenedioxymethamphetamine  
methamphetamine  
citalopram

RN (cocaine) 50-36-2, 53-21-4, 5937-29-1; (3,4 methylenedioxymethamphetamine) 42542-10-9; (methamphetamine) 28297-73-6, 51-57-0, 537-46-2, 7632-10-2; (citalopram) 59729-33-8

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AN 97268302 EMBASE

DN 1997268302

TI Brain serotonin neurotoxicity and primary pulmonary hypertension from

fenfluramine and dexfenfluramine: A systematic review of the evidence.

AU McCann U.D.; Seiden L.S.; Rubin L.J.; Ricaurte G.A.

CS Dr. U.D. McCann, Unit on Anxiety Disorders, Biological Psychiatry Branch,  
National Institute of Mental Health, 10 Center Dr, Bethesda, MD  
20892-1272, United States. umccann@helix.nih.gov

SO Journal of the American Medical Association, (1997) 278/8 (666-672).  
Refs: 107  
ISSN: 0098-7484 CODEN: JAMAAP

CY United States

DT Journal; General Review

FS 008 Neurology and Neurosurgery  
015 Chest Diseases, Thoracic Surgery and Tuberculosis  
037 Drug Literature Index  
038 Adverse Reactions Titles

LA English

SL English

AB Objectives. - Obesity is an important clinical problem, and the use of  
dexfenfluramine hydrochloride for weight reduction has been widely  
publicized since its approval by the Food and Drug Administration.  
However, animal and human studies have demonstrated toxic effects of  
fenfluramines that clinicians should be aware of when considering  
prescribing the drugs. Our purpose was to systematically review data on  
brain serotonin neurotoxicity in animals treated with fenfluramines and  
the evidence linking fenfluramines to primary pulmonary hypertension  
(PPH). Data Sources. - Archival articles and reviews identified through a  
computerized search of MEDLINE from 1966 to April 1997 using  
'fenfluramine(s)', 'serotonin', 'neurotoxicity', 'behavior',  
'anorexigens', 'weight loss', and 'primary pulmonary hypertension' as  
index terms. Study Selection. - Reports dealing with long-term effects of  
fenfluramines on brain serotonin neurons, body weight, and pulmonary  
function in animals and humans. Data Extraction. - Reports were reviewed  
by individuals with expertise in serotonin neurobiology, neurotoxicity,  
neuropsychiatry, and pulmonary medicine and evaluated for appropriateness  
for inclusion in this review. Data Synthesis. - Fenfluramines cause  
dose-related, long-lasting reductions in serotonin axonal markers in all  
the animal species tested and with all the routes of drug administration  
used. Doses of fenfluramines that produce signs of brain serotonin  
neurotoxicity in animals are on the same order as those used to treat  
humans for weight loss when one takes into account known relations between  
body mass and drug clearance. However, no human studies have been  
conducted, and the pathological and clinical potential for neurotoxicity  
in humans is unknown. Appetite suppressants-most commonly  
fenfluramines-increase the risk of developing PPH (odds ratio, 6.3),  
particularly when used for more than 3 months (odds ratio, >20).  
Conclusions. - Fenfluramine and dexfenfluramine have been demonstrated to  
damage brain serotonin neurons in animal studies. It is not known if such  
damage occurs in humans or if there are clinical consequences. Use of  
fenfluramines is associated with an increased risk of PPH. Future studies  
should address the long-term consequences of prolonged use of  
fenfluramines.

CT Medical Descriptors:  
\*brain  
\*neurotoxicity: DI, diagnosis  
\*neurotoxicity: ET, etiology  
\*neurotoxicity: SI, side effect  
\*pulmonary hypertension: ET, etiology  
\*pulmonary hypertension: DT, drug therapy  
\*pulmonary hypertension: SI, side effect  
\*pulmonary hypertension: SU, surgery

\*pulmonary hypertension: EP, epidemiology  
\*serotonergic nerve cell  
body mass  
clinical feature  
dose response  
drug brain level  
drug efficacy  
drug metabolism  
drug safety  
human  
immunohistochemistry  
intraperitoneal drug administration  
intravenous drug administration  
nonhuman  
obesity: DT, drug therapy  
obesity: DI, diagnosis  
oral drug administration  
priority journal  
review  
subcutaneous drug administration  
transplantation  
Drug Descriptors:  
\*aminorex: TO, drug toxicity  
\*aminorex: AE, adverse drug reaction  
\*dexfenfluramine: PK, pharmacokinetics  
\*dexfenfluramine: TO, drug toxicity  
\*dexfenfluramine: DO, drug dose  
\*dexfenfluramine: CR, drug concentration  
\*dexfenfluramine: AD, drug administration  
\*dexfenfluramine: AE, adverse drug reaction  
\*dexfenfluramine: DT, drug therapy  
\*fenfluramine: AD, drug administration  
\*fenfluramine: IT, drug interaction  
\*fenfluramine: CB, drug combination  
\*fenfluramine: CR, drug concentration  
\*fenfluramine: DO, drug dose  
\*fenfluramine: AE, adverse drug reaction  
\*fenfluramine: PK, pharmacokinetics  
\*fenfluramine: DT, drug therapy  
\*phentermine: DT, drug therapy  
\*phentermine: CB, drug combination  
\*phentermine: IT, drug interaction  
\*serotonin: EC, endogenous compound  
3,4 methylenedioxymethamphetamine: TO, drug toxicity  
5 hydroxyindoleacetic acid: EC, endogenous compound  
5,6 dihydroxytryptamine: TO, drug toxicity  
5,7 dihydroxytryptamine: TO, drug toxicity  
amphetamine: TO, drug toxicity  
anorexigenic agent: DO, drug dose  
anorexigenic agent: CR, drug concentration  
anorexigenic agent: CB, drug combination  
anorexigenic agent: AD, drug administration  
anorexigenic agent: AE, adverse drug reaction  
anorexigenic agent: PK, pharmacokinetics  
anorexigenic agent: DT, drug therapy  
anorexigenic agent: IT, drug interaction  
**antibody**  
anticoagulant agent: DT, drug therapy  
chloramphetamine: TO, drug toxicity

diuretic agent: DT, drug therapy  
 glial fibrillary acidic protein: EC, endogenous compound  
 neuromodulin: EC, endogenous compound  
 oxygen  
 potassium  
 prostacyclin: AD, drug administration  
 prostacyclin: DT, drug therapy  
 serotonin receptor: EC, endogenous compound  
 serotonin uptake inhibitor: AE, adverse drug reaction  
 structural protein: EC, endogenous compound  
 tricyclic antidepressant agent  
 tryptophan hydroxylase: EC, endogenous compound  
 vasodilator agent: AD, drug administration  
 vasodilator agent: DT, drug therapy  
 RN (aminorex) 13425-22-4, 2207-50-3; (dexfenfluramine) 3239-44-9, 3239-45-0;  
 (fenfluramine) 404-82-0, 458-24-2; (phentermine) 1197-21-3, 122-09-8;  
 (serotonin) 50-67-9; (3,4 methylenedioxymethamphetamine)  
 42542-10-9; (5 hydroxyindoleacetic acid) 1321-73-9, 54-16-0; (5,6  
 dihydroxytryptamine) 5090-36-8; (5,7 dihydroxytryptamine) 31363-74-3;  
 (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7,  
 60-13-9, 60-15-1; (chloramphetamine) 64-12-0; (oxygen) 7782-44-7;  
 (potassium) 7440-09-7; (prostacyclin) 35121-78-9, 61849-14-7; (tryptophan  
 hydroxylase) 9037-21-2  
 CN (1) Redux; (2) Redux; (3) Pondimin  
 CO (1) Wyeth ayerst (United States); (2) Interneuron (United States); (3)  
 Robins (United States)

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AN 97269033 EMBASE

DN 1997269033

TI High level expression of equine herpesvirus 1 glycoproteins D and H and  
 their role in protection against virus challenge in the C3H (H-2K(k))  
 murine model.

AU Stokes A.; Cameron R.S.; Marshall R.N.; Killington R.A.

CS A. Stokes, NERC IVEM, Mansfield Road, Oxford, OX1 3SR, United Kingdom.  
 asto@mail.nerc-oxford.ac.uk

SO Virus Research, (1997) 50/2 (159-173).

Refs: 47

ISSN: 0168-1702 CODEN: VIREDF

PUI S 0168-1702(97)00067-1

CY Netherlands

DT Journal; Article

FS 004 Microbiology

026 Immunology, Serology and Transplantation

LA English

SL English

AB N and C-terminal truncated forms of equine herpesvirus 1 (EHV 1)  
 glycoproteins gD and gH were expressed in baculovirus resulting in the  
 production of secreted recombinant proteins. A carboxy-terminal histidine  
 tag was included on each of the genes for protein isolation by nickel  
 affinity chromatography. Recombinant gD was recognized by three gD  
 specific monoclonal antibodies, 20C4, 5H6 and F3132. F3132 is a  
 conformationally dependent monoclonal antibody with virus neutralizing  
 activity. Expression of gH was confirmed by reacting the protein with the  
 gH peptide specific antiserum R319. The truncated gD gene was also  
 expressed as a  $\beta$ -galactosidase fusion protein which was purified from  
 E. coli by nickel affinity chromatography C3H mice were inoculated with  
 purified recombinant gD or gH or insect cells which had been infected with

recombinant baculoviruses. Mice were subsequently challenged with EHV 1. Purified recombinant baculovirus gD provided the most protection and produced high **eve** s of virus neutralizing **antibodies**. The gD fusion protein was less effective at protecting mice and insect cells infected with either of the recombinant baculoviruses or purified recombinant gH were poor at conferring protection. The results emphasize the importance of using purified proteins in vaccine formulations and of including EHV 1 gD as a component of a subunit vaccine.

## CT Medical Descriptors:

\*equine herpes virus

\*virus infection

animal experiment

animal model

article

controlled study

immunization

mouse

nonhuman

priority journal

protection

## Drug Descriptors:

\*hybrid protein

\*neutralizing antibody: EC, endogenous compound

\*recombinant protein

\*virus glycoprotein: EC, endogenous compound

\*virus vaccine

beta galactosidase

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AN 96049997 EMBASE

DN 1996049997

TI Comparison of polyclonal and monoclonal assays for routine screening of  
urines for amphetamines.

AU Moore F.M.L.; Jarvie D.R.; Simpson D.

CS Department of Clinical Biochemistry, The Royal Infirmary, Edinburgh EH3  
9YW, United Kingdom

SO Annals of Clinical Biochemistry, (1996) 33/1 (78-81).

ISSN: 0004-5632 CODEN: ACBOBU

CY United Kingdom

DT Journal; Article

FS 037 Drug Literature Index

040 Drug Dependence, Alcohol Abuse and Alcoholism

052 Toxicology

LA English

## CT Medical Descriptors:

\*drug screening

\*drug urine level

\*enzyme multiplied immunoassay technique

article

clinical trial

drug dependence

human

intermethod comparison

major clinical study

priority journal

## Drug Descriptors:

\*amphetamine

\*monoclonal antibody

**\*polyclonal antibody**

3,4 methylenedioxymethamphetamine

ephedrine

phenylpropanolamine

pseudoephedrine

RN (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7, 60-13-9, 60-15-1; (3,4 methylenedioxymethamphetamine) **42542-10-9**; (ephedrine) 299-42-3, 50-98-6; (phenylpropanolamine) 14838-15-4, 154-41-6, 4345-16-8, 48115-38-4; (pseudoephedrine) 345-78-8, 7460-12-0, 90-82-4

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AN 95074977 EMBASE

DN 1995074977

TI Immunological approach to investigating membrane cell damages induced by lipoperoxidative stress: Application to far UV-irradiated erythrocytes.

AU Petit E.; Divoux D.; Chancerelle Y.; Kergonou J.F.; Nouvelot A.

CS Laboratoire de Neurosciences, URA 1829-CNRS, Bd Henri Becquerel, 14052 Caen, Cedex, France

SO Biological Trace Element Research, (1995) 47/1-3 (17-28).

ISSN: 0163-4984 CODEN: BTERDG

CY United States

DT Journal; Conference Article

FS 005 General Pathology and Pathological Anatomy

029 Clinical Biochemistry

LA English

SL English

AB Oxygen-reactive species are being described as agents responsible for cell degeneration mechanisms resulting from membrane, enzyme, and nuclear alterations. Lipid peroxidation on its own is considered to be one of the consequences of the free radicals attack, and among the different reactive aldehydes that can be formed from the decomposition of lipid peroxides, the most extensively assayed have been malondialdehyde (MDA). However, the different techniques currently used for MDA assay (HPLC, GLC) are barely sensitive enough to follow its production at the cellular level. In order to develop an immunofluorescent technique able to detect cellular damages provoked by lipoperoxidation, polyclonal **antibodies** against lysozyme modified by MDA treatment have been raised in rabbits. We show that this immunoserum recognizes specifically all the MDA-treated proteins tested, but not the intact proteins or the proteins treated by other aldehydes. Moreover, we demonstrate using an ELISA technique that the amount of immunoreactive proteins in MDA-treated membrane erythrocytes is proportional to the concentration of MDA applied, suggesting that this assay may represent a quantitative method of determination of lipoperoxidative alterations. In addition, when coupled to an indirect fluorophore **antibody** (FITC), the immunoserum allows a precise location of these modified proteins within the membranes of erythrocytes in which lipid peroxidation was initiated by far UV irradiation. In summary, the interest of this work is to provide an immunological probe that can precociously detect membrane damages induced by MDA, regardless of the cell type and prooxidant (physiological or pathological) conditions.

CT Medical Descriptors:

\*cell damage

\*lipid peroxidation

animal experiment

conference paper

controlled study

enzyme linked immunosorbent assay  
erythrocyte ghost  
human  
human cell  
immunoblotting  
immunofluorescence microscopy  
immunoreactivity  
membrane damage  
nonhuman  
oxidative stress  
polyacrylamide gel electrophoresis  
protein modification  
ultraviolet irradiation  
Drug Descriptors:  
3,4 methylenedioxymphetamine  
aldehyde  
lysozyme

**polyclonal antibody**

polypeptide

RN (3,4 methylenedioxymphetamine) 4764-17-4; (lysozyme) 9001-63-2

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AN 95162576 EMBASE

DN 1995162576

TI 125I radioimmunoassay for the dual detection of amphetamine and  
methamphetamine.

AU Ward C.; McNally A.J.; Rusyniak D.; Salamone S.J.

CS Intl. Drug Monitoring Business Unit, Roche Diagnostic Systems, Inc., 1080  
US Highway 202, Branchburg, NJ 08876-1760, United States

SO Journal of Forensic Sciences, (1994) 39/6 (1486-1496).

ISSN: 0022-1198 CODEN: JFSCAS

CY United States

DT Journal; Article

FS 037 Drug Literature Index

040 Drug Dependence, Alcohol Abuse and Alcoholism

049 Forensic Science Abstracts

052 Toxicology

LA English

SL English

AB A radioimmunoassay that exhibits a nearly equivalent response to D-amphetamine and D-methamphetamine in urine over the assay range of 0 to 1000 ng/mL while displaying low cross-reactivity to L-amphetamine and L-methamphetamine (4.6% and 2.4%, respectively) has been developed. In addition, methylenedioxymphetamine (MDA) and methylenedioxymethamphetamine (MDMA) were detectable in the assay with cross-reactivity levels of >100% and 77% respectively. Little cross-reactivity was observed with the commonly encountered over-the-counter (OTC) drugs and this cross-reactivity was further reduced by the addition of sodium periodate into the reaction mixture to oxidize the  $\beta$ -hydroxylamines. The double (second) **antibody** assay uses 125I-radiolabeled derivatives of both D-amphetamine and D-methamphetamine as tracers in combination with two highly specific sheep antisera directed against D-amphetamine and D-methamphetamine. The assay exhibits a dose response of approximately 90,000 dpm from 0 to 1000 ng/mL of D-amphetamine or D-methamphetamine with a minimum detectable dose for either drug of approximately 25 ng/mL. With a cut-off level of 500 ng/mL, the assay gave a positive result for 100% of the 111 clinical samples containing GC/MS confirmed (at or above the NIDA GC/MS cut-off values)

levels of amphetamine and/or methamphetamine. Eighty eight samples that screened negative in a clinical laboratory were all negative in the assay. Nineteen samples which were incorrectly identified as positive by other commercially available amphetamine assays were negative in this RIA.

## CT Medical Descriptors:

\*drug cross reactivity

\*drug screening

\*radioimmunoassay

article

concentration response

controlled study

drug structure

gas chromatography

human

isotope labeling

mass spectrometry

priority journal

urinalysis

## Drug Descriptors:

\*amphetamine: AN, drug analysis

\*amphetamine: DO, drug dose

\*antigen: AN, drug analysis

\*iodine 125

\*methamphetamine: DO, drug dose

\*methamphetamine: AN, drug analysis

\*periodate sodium

\*tracer: AN, drug analysis

3,4 methylenedioxyamphetamine

3,4 methylenedioxymethamphetamine

4 (2 aminopropyl) n [2 (4 hydroxyphenyl)ethyl]benzenebutanamide: AN, drug analysis

benzene derivative: AN, drug analysis

ephedrine

hydroxyamphetamine

n [2 (4 hydroxyphenyl)ethyl] 4 [2 (methylamino)propyl]benzenebutanamide: AN, drug analysis

n [4 [4 (2 aminopropyl)phenyl] 1 oxobutyl]lysyl bovine thyroglobulin: AN, drug analysis

n [4 [4 [2 (methylamino)propyl]phenyl] 1 oxobutyl]lysyl bovine thyroglobulin: AN, drug analysis

norpseudoephedrine

phenethylamine

phentermine

phenylpropanolamine

propylhexedrine

pseudoephedrine

tyramine

unclassified drug

RN (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7, 60-13-9, 60-15-1; (iodine 125) 14158-31-7, 22822-81-7; (methamphetamine) 28297-73-6, 51-57-0, 537-46-2, 7632-10-2; (periodate sodium) 7790-28-5; (3,4 methylenedioxyamphetamine) 4764-17-4; (3,4 methylenedioxymethamphetamine) 42542-10-9; (ephedrine) 299-42-3, 50-98-6; (hydroxyamphetamine) 103-86-6, 1518-86-1, 306-21-8; (norpseudoephedrine) 2153-98-2, 36393-56-3, 492-39-7; (phenethylamine) 64-04-0; (phentermine) 1197-21-3, 122-09-8; (phenylpropanolamine) 14838-15-4, 154-41-6, 4345-16-8, 48115-38-4; (propylhexedrine) 101-40-6, 3595-11-7, 532-52-5, 6192-97-8; (pseudoephedrine) 345-78-8, 7460-12-0, 90-82-4; (tyramine) 51-67-2, 60-19-5



CO Sigma; Amersham

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AN 94286546 EMBASE

DN 1994286546

TI The endogenous vascular elastase that governs development and progression of monocrotaline-induced pulmonary hypertension in rats is a novel enzyme related to the serine proteinase adipsin.

AU Zhu L.; Wigle D.; Hinek A.; Kobayashi J.; Ye C.; Zuker M.; Dodo H.; Keeley F.W.; Rabinovitch M.

CS Division of Cardiovascular Research, Hospital for Sick Children, 555 University Avenue, Toronto, Ont. M5G 1X8, Canada

SO Journal of Clinical Investigation, (1994) 94/3 (1163-1171).

ISSN: 0021-9738 CODEN: JCINAO

CY United States

DT Journal; Article

FS 005 General Pathology and Pathological Anatomy

006 Internal Medicine

007 Pediatrics and Pediatric Surgery

015 Chest Diseases, Thoracic Surgery and Tuberculosis

018 Cardiovascular Diseases and Cardiovascular Surgery

LA English

SL English

AB We showed previously a cause and effect relationship between increased activity of an endogenous vascular elastase (EVE) and experimentally induced pulmonary hypertension in rats. We now report the isolation and characterization of EVE. Degenerate oligonucleotides synthesized to homologous sequences in serine elastases were used in a PCR with rat pulmonary artery (PA) cDNA. The PCR product hybridized to a 1.2-kb mRNA and the intensity of hybridization was threefold increased in RNA from rat hypertensive PA at a timepoint when EVE activity was increased. The PCR product was used to screen a cDNA library and sequences obtained encoded rat adipsin. We then used immunoaffinity to purify EVE. An antibody to the elastin-binding protein was used to remove this competitor of elastase from the PA extract and the elastolytic activity increased 100-fold. The enzyme was purified using an antibody that recognizes NH2-terminal sequences of serine proteinases and the eluate was further purified using an antibody raised against recombinant adipsin. A single band at 20 kD immunoreactive with the adipsin antibody was resolved as an active enzyme on an elastin substrate gel. Immunogold labeling with an antibody to an adipsin peptide sequence localized EVE to PA smooth muscle cells. This is the first isolation of EVE; it appears to be a novel enzyme related to the serine proteinase adipsin originally found in adipose tissue.

CT Medical Descriptors:  
\*pulmonary hypertension  
animal tissue  
article  
enzyme activity  
nonhuman  
pathophysiology  
priority journal  
pulmonary artery  
rat  
vascular smooth muscle  
Drug Descriptors:  
\*adipsin  
\*elastase

\*serine proteinase  
RN (adipsin) 104118-48-1; (elastase) 9004-06-2; (serine proteinase)  
37259-58-8

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on STN  
AN 90330367 EMBASE  
DN 1990330367  
TI ~~Detection of D,L-amphetamine, D,L-methamphetamine, and illicit amphetamine  
analogues using Diagnostic Products Corporation's amphetamine and  
methamphetamine radioimmunoassay.~~  
AU Cody J.T.  
CS Air Force Drug Testing Laboratory, Brooks AFB, TX 78235-5000, United  
States  
SO Journal of Analytical Toxicology, (1990) 14/5 (321).  
ISSN: 0146-4760 CODEN: JATOD3  
CY United States  
DT Journal; Note  
FS 029 Clinical Biochemistry  
052 Toxicology  
LA English  
SL English  
AB Cross-reactivity with Diagnostic Products Corporation (DPC) amphetamine  
and methamphetamine radioimmunoassay (RIA) reagents was determined for  
amphetamine, methamphetamine, and a number of amphetamine analogs.  
Concentrations from 100 to 100,000 ng/mL were assayed.  
3,4-Methylenedioxymphetamine (MDA) and 3,4-methylenedioxymethamphetamine  
(MDMA) showed significant cross-reactivity for the amphetamine and  
methamphetamine reagents respectively. 4-Hydroxymethamphetamine,  
3,4-methylenedioxyethylamphetamine (MDEA), and N,N-dimethyl-MDA also  
showed significant cross-reactivity with the methamphetamine reagents, but  
less than MDMA. None of the other analogs showed a positive result with  
the amphetamine or methamphetamine reagents at even the highest  
concentration, although several did show measurable cross-reactivity. The  
L isomers of amphetamine and methamphetamine showed substantially less  
cross-reactivity than the D forms to which the respective **antibody**  
systems are targeted.

CT Medical Descriptors:  
\*amphetamine analog  
\*radioimmunoassay  
drug analysis  
nonhuman  
methodology  
note  
priority journal  
Drug Descriptors:  
\*amphetamine  
\*methamphetamine  
3,4 methylenedioxymphetamine  
3,4 methylenedioxymethamphetamine  
illicit drug

RN (amphetamine) 1200-47-1, 139-10-6, 156-34-3, 2706-50-5, 300-62-9, 51-62-7,  
60-13-9, 60-15-1; (methamphetamine) 28297-73-6, 51-57-0, 537-46-2,  
7632-10-2; (3,4 methylenedioxymphetamine) 4764-17-4; (3,4  
methylenedioxymethamphetamine) 42542-10-9

L39 ANSWER 43 OF 51 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
DUPLICATE 4  
AN 2003:381237 BIOSIS

DN PREV200300381237  
 TI ( + ) 3,4 - METHYLENEDIOXYMETHAMPHETAMINE ( ( + ) - MDMA) INDUCES THE IMMEDIATE - EARLY GENE c - Fos IN THE PATCH AND MATRIX COMPARTMENTS OF THE RAT STRIATUM.  
 AU Frankel, P. S. [Reprint Author]; Szucs, R. P. [Reprint Author]; Herin, D. V. [Reprint Author]; Cunningham, K. A. [Reprint Author]  
 CS Department of Pharmacology and Toxicology, University of Texas Medical Branch, Galveston, TX, USA  
 SO Society for Neuroscience Abstract Viewer and Itinerary Planner, (2002) Vol. 2002, pp. Abstract No. 901.8. <http://sfn.scholarone.com>. cd-rom. Meeting Info.: 32nd Annual Meeting of the Society for Neuroscience. Orlando, Florida, USA. November 02-07, 2002. Society for Neuroscience.  
 DT Conference; (Meeting)  
 Conference; (Meeting Poster)  
 Conference; Abstract; (Meeting Abstract)  
 LA English  
 ED Entered STN: 20 Aug 2003  
 Last Updated on STN: 20 Aug 2003  
 AB Most abused drugs including 3,4-methylenedioxymethamphetamine (MDMA, "ecstasy") evoke expression of the immediate-early gene (IEG) protein c-Fos in the rat striatum; however, little is known about the characteristics of the striatal cells expressing c-Fos. The striatum is divided into two compartments based upon inputs, outputs and genes expressed. These compartments are the patch (striosome; approx 15% of striatal volume) and the matrix (approx 85% of striatal volume). Amphetamine induces c-Fos in both striatal compartments and in the present study, we investigated the ability of the most behaviorally active isomer of MDMA ((+)-MDMA), to induce c-Fos in both striatal compartments; the patch compartment was differentiated from the matrix by labeling immunohistochemically with a mu opioid receptor **antibody**. Rats were injected with either saline, (+)-MDMA (1 or 10 mg/kg) or amphetamine (5 mg/kg) and perfused 2 hours later; the brains were processed immunohistochemically for the IEG c-Fos and the mu opioid receptor. (+)-MDMA significantly increased c-Fos expression in both the patch and matrix compartments in a dose-related manner. These results are the first demonstration that striatal cells in both compartments are sensitive to activation by (+)-MDMA, an effect shared with amphetamine. Activation of c-Fos expression in both striatal compartments suggests that striatal input and output pathways contribute extensively to the pattern of behavior evoked by (+)-MDMA.  
 CC General biology - Symposia, transactions and proceedings 00520  
 Genetics - General 03502  
 Genetics - Animal 03506  
 Biochemistry studies - General 10060  
 Pathology - Therapy 12512  
 Nervous system - Physiology and biochemistry 20504  
 Pharmacology - General 22002  
 Pharmacology - Neuropharmacology 22024  
 IT Major Concepts  
 Molecular Genetics (Biochemistry and Molecular Biophysics); Nervous System (Neural Coordination); Pharmacology  
 IT Parts, Structures, & Systems of Organisms  
 brain: nervous system; striatum: nervous system, matrix compartment, patch compartment  
 IT Chemicals & Biochemicals  
 MDMA: autonomic-drug, pharmacodynamics; amphetamine: autonomic-drug, pharmacodynamics; mu opioid receptor  
 ORGN Classifier  
 Muridae 86375

Super Taxa  
 Rodentia; Mammalia; Vertebrata; Chordata; Animalia  
 Organism Name  
 rat (common)  
 Taxa Notes  
 Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals,  
 Rodents, Vertebrates

RN 42542-10-9 (MDMA)  
 300-62-9 (amphetamine)

GEN rat c-Fos gene (Muridae): expression, immediate-early gene, regulation

L39 ANSWER 44 OF 51 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
 AN 2004:206678 BIOSIS  
 DN PREV200400207134  
 TI Modulation of 5 - HT neurochemistry by S - glutathionylation: potential  
 role in MDMA neurotoxicity.  
 AU Sakowski, S. A. [Reprint Author]; Sadidi, M.; Kuhn, D. M. [Reprint Author]  
 CS Ctr. for Molec Med. and Genet, Wayne State Univ. Sch. of Med, Detroit, MI,  
 USA  
 SO Society for Neuroscience Abstract Viewer and Itinerary Planner, (2003)  
 Vol. 2003, pp. Abstract No. 961.5. <http://sfn.scholarone.com>. e-file.  
 Meeting Info.: 33rd Annual Meeting of the Society of Neuroscience. New  
 Orleans, LA, USA. November 08-12, 2003. Society of Neuroscience.  
 DT Conference; (Meeting)  
 Conference; Abstract; (Meeting Abstract)  
 LA English  
 ED Entered STN: 14 Apr 2004  
 Last Updated on STN: 14 Apr 2004

AB Tryptophan hydroxylase (TPH) is the initial and rate-limiting enzyme in  
 the formation of the neurotransmitter serotonin. The neurotoxic  
 amphetamine MDMA causes significant reductions in TPH activity. Though  
 the mechanisms by which MDMA affects TPH and damages the serotonin  
 neuronal system have not been determined, oxidative stress has been  
 implicated as an underlying mechanism. MDMA intoxication has also been  
 associated with alterations in glutathione (GSH) levels and function.  
 Therefore, we hypothesized that GSH could be interacting with reactive  
 species to modify TPH. Diamide, a thiol-specific oxidant used to mimic  
 oxidative stress, slightly inhibits TPH activity. This inhibition is  
 significantly enhanced by GSH. GSSG, the oxidized form of GSH, also  
 inhibits TPH activity. This inhibition by GSH-diamide can be prevented by  
 reducing agents and antioxidants and is partially reversed by  
 dithiothreitol (DTT). Treatment of TPH with GSH-diamide, or with GSSG,  
 results in the binding of GSH to the enzyme as revealed by immunoblotting  
 with an **antibody** against GSH-modified proteins. These  
 post-translational modifications caused by GSH-diamide and GSSG are  
 prevented and reversed by DTT and establish that TPH is modified by  
 S-glutathionylation, the formation of a disulfide linkage between GSH and  
 protein cysteine residues. The reactive nitrogen species peroxynitrite  
 and nitrogen dioxide, in the presence of GSH, also cause  
 S-glutathionylation of TPH. S-nitrosothiols such as GSNO or GSNO<sub>2</sub>, which  
 are formed when peroxynitrite interacts with GSH, both inhibit TPH and  
 cause S-glutathionylation. S-glutathionylation represents a new mechanism  
 by which serotonin neurochemistry can be regulated and represents a  
 probable mechanism by which TPH is inhibited in vivo by neurotoxic  
 amphetamines.

CC General biology - Symposia, transactions and proceedings 00520  
 Biochemistry studies - General 10060  
 Biochemistry studies - Proteins, peptides and amino acids 10064  
 Endocrine - Neuroendocrinology 17020

Nervous system - Physiology and biochemistry 20504  
 Nervous system - Pathology 20506  
 Toxicology - General and methods 22501  
 Immunology - General and methods 34502  
 IT Major Concepts  
     Nervous System (Neural Coordination)  
 IT Parts, Structures, & Systems of Organisms  
     serotonin neuronal system: nervous system  
 IT Diseases  
     intoxication: toxicity  
 IT Diseases  
     neurotoxicity: nervous system disease  
 IT Chemicals & Biochemicals  
     5-HT [serotonin]; DTT [dithiothreitol]; GSH [glutathione]; GSSG; MDMA;  
     S-nitrosothiols; amphetamine; **antibodies**; antioxidants;  
     diamide; neurotransmitters; nitrogen dioxide; peroxyxynitrite; reactive  
     nitrogen species  
 IT Methods & Equipment  
     immunoblotting: immunologic techniques, laboratory techniques  
 IT Miscellaneous Descriptors  
     neurochemistry  
 RN 50-67-9 (5-HT)  
     50-67-9 (serotonin)  
     3483-12-3 (DTT)  
     3483-12-3 (dithiothreitol)  
     70-18-8 (GSH)  
     70-18-8 (glutathione)  
     **42542-10-9** (MDMA)  
     300-62-9 (amphetamine)  
     10465-78-8 (diamide)  
     10102-44-0 (nitrogen dioxide)  
     19059-14-4 (peroxyxynitrite)  
     7727-37-9 (reactive nitrogen species)  
 L39 ANSWER **(45)** OF 51 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
 AN 2001:131172 BIOSIS  
 DN PREV200100131172  
 TI Ecstasy induced severe acute hepatitis among young adults.  
 AU Akhras, Jamil [Reprint author]; Kinzie, Joseph L. [Reprint author]  
 CS Wayne State University, Detroit, MI, USA  
 SO American Journal of Gastroenterology, (September, 2000) Vol. 95, No. 9,  
     pp. 2558-2559. print.  
     Meeting Info.: 65th Annual Scientific Meeting of the American College of  
     Gastroenterology. New York, New York, UK. October 13-18, 2000. American  
     College of Gastroenterology.  
     CODEN: AJGAAR. ISSN: 0002-9270.  
 DT Conference; (Meeting)  
     Conference; Abstract; (Meeting Abstract)  
 LA English  
 ED Entered STN: 14 Mar 2001  
     Last Updated on STN: 15 Feb 2002  
 CC Biochemistry studies - Proteins, peptides and amino acids 10064  
     General biology - Symposia, transactions and proceedings 00520  
     Behavioral biology - Human behavior 07004  
     Biochemistry studies - General 10060  
     Biochemistry studies - Porphyrins and bile pigments 10065  
     Enzymes - General and comparative studies: coenzymes 10802  
     Pathology - Diagnostic 12504  
     Digestive system - Physiology and biochemistry 14004

Digestive system - Pathology 14006  
 Urinary system - Physiology and biochemistry 15504  
 Integumentary system - Pathology 18506  
 Psychiatry - Psychopathology, psychodynamics and therapy 21002  
 Toxicology - General and methods 22501

IT Major Concepts  
   Gastroenterology (Human Medicine, Medical Sciences); Toxicology

IT Parts, Structures, & Systems of Organisms  
   liver: digestive system, echogenicity; stool: digestive system,  
   clay-colored; urine: excretory system, dark color

IT Diseases  
   anorexia: behavioral and mental disorders  
   Anorexia (MeSH)

IT Diseases  
   jaundice: digestive system disease  
   Jaundice (MeSH)

IT Diseases  
   nausea: digestive system disease  
   Nausea (MeSH)

IT Diseases  
   pruritus: integumentary system disease  
   Pruritus (MeSH)

IT Diseases  
   severe acute hepatitis: digestive system disease, toxicity, treatment

IT Chemicals & Biochemicals  
   ALT [alanine aminotransferase]; AMA [anti-mitochondrial  
   antibody]; ANA [anti-nuclear antibody]; ASMA  
   [anti-smooth muscle antibody]; AST [aspartate transaminase];  
   HCV Ab [hepatitis C virus antibody]; HCV PCR/RNA [hepatitis C  
   virus polymerase chain reaction/RNA]; HEV Ab [hepatitis E virus  
   antibody]; albumin; alcohol: toxin; alkaline phosphatase;  
   bilirubin; ecstasy: toxicity; hepatitis A antibody; hepatitis  
   B core antibody [HbcAb]; hepatitis B surface antibody  
   [HbsAb]; hepatitis B surface antigen [HbsAg]

IT Methods & Equipment  
   PT [prothrombin time]: diagnostic method; abdominal ultrasound: imaging  
   method

IT Miscellaneous Descriptors  
   clay-colored stool; lethargy; Meeting Abstract

ORGN Classifier  
   Hominidae 86215  
   Super Taxa  
   Primates; Mammalia; Vertebrata; Chordata; Animalia  
   Organism Name  
   human: Caucasian, adult, female, patient  
   Taxa Notes  
   Animals, Chordates, Humans, Mammals, Primates, Vertebrates

RN 64-17-5 (alcohol)  
 9001-78-9 (alkaline phosphatase)  
 635-65-4 (bilirubin)  
 42542-10-9 (ecstasy)  
 9000-86-6 (ALANINE AMINOTRANSFERASE)

L39 ANSWER 46 OF 51 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
 AN 2000:365197 BIOSIS  
 DN PREV200000365197  
 TI Effect of MDMA on microtubule-associated protein 2 (MAP2) in the rat  
 brain: An ELISA study.  
 AU Meller, R. [Reprint author]; Zetterstrom, T. [Reprint author]; Mechan, A.

O. [Reprint author]; Green, A. R. [Reprint author]; Elliott, J. M. [Reprint author]  
 CS School of Pharmacy, DeMontfort University, Leicester, LE3 0QL, UK  
 SO European Journal of Neuroscience, (2000) Vol. 12, No. Supplement 11, pp. 206. print.  
 Meeting Info.: Meeting of the Federation of European Neuroscience Societies. Brighton, UK. June 24-28, 2000.  
 ISSN: 0953-816X.  
 DT Conference; (Meeting)  
 Conference; Abstract; (Meeting Abstract)  
 Conference; (Meeting Poster)  
 LA English  
 ED Entered STN: 23 Aug 2000  
 Last Updated on STN: 8 Jan 2002  
 CC Pharmacology - General 22002  
 Cytology - Animal 02506  
 Pathology - Therapy 12512  
 Nervous system - Physiology and biochemistry 20504  
 Toxicology - General and methods 22501  
 General biology - Symposia, transactions and proceedings 00520  
 IT Major Concepts  
 Nervous System (Neural Coordination); Pharmacology; Toxicology  
 IT Parts, Structures, & Systems of Organisms  
 hippocampus: nervous system; neuronal dendrites: nervous system;  
 serotonergic neurons: nervous system  
 IT Chemicals & Biochemicals  
 3,4-methylenedioxymethamphetamine [MDMA, ecstasy]; microtubular  
 associated protein 2  
 IT Methods & Equipment  
 ELISA: **antibody** detection method  
 IT Miscellaneous Descriptors  
 synaptic density; Meeting Abstract; Meeting Poster  
 ORGN Classifier  
 Muridae 86375  
 Super Taxa  
 Rodentia; Mammalia; Vertebrata; Chordata; Animalia  
 Organism Name  
 rat: male, strain-Dark Agouti  
 Taxa Notes  
 Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals,  
 Rodents, Vertebrates  
 RN 42542-10-9 (3,4-methylenedioxymethamphetamine)  
 42542-10-9 (MDMA)  
 42542-10-9 (ecstasy)  
 L39 ANSWER 47 OF 51 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
 AN 1996:311430 BIOSIS  
 DN PREV199699033786  
 TI Distinct pharmacological properties and distribution in neurons and  
 endocrine cells of two isoforms of the human vesicular monoamine  
 transporter.  
 AU Erickson, Jeffrey D. [Reprint author]; Schaefer, Martin K. H.; Bonner, Tom  
 I.; Eiden, Lee E.; Weihe, Eberhard  
 CS Building 36, Room 3A-17, National Inst. Mental Health/National Inst.  
 Health, Bethesda, MD 20892, USA  
 SO Proceedings of the National Academy of Sciences of the United States of  
 America, (1996) Vol. 93, No. 10, pp. 5166-5171.  
 CODEN: PNASA6. ISSN: 0027-8424.  
 DT Article

LA English  
 ED Entered STN: 11 Jul 1996  
 Last Updated on STN: 11 Jul 1996  
 AB A second isoform of the human vesicular monoamine transporter (hVMAT) has been cloned from a pheochromocytoma cDNA library. The contribution of the two transporter isoforms to monoamine storage in human neuroendocrine tissues was examined with isoform-specific polyclonal **antibodies** against hVMAT1 and hVMAT2. Central, peripheral, and enteric neurons express only VMAT2. VMAT1 is expressed exclusively in neuroendocrine, including chromaffin and enterochromaffin, cells. VMAT1 and VMAT2 are coexpressed in all chromaffin cells of the adrenal medulla. VMAT2 alone is expressed in histamine-storing enterochromaffin-like cells of the oxyntic mucosa of the stomach. The transport characteristics and pharmacology of each VMAT isoform have been directly compared after expression in digitonin-permeabilized fibroblastic (CV-1) cells, providing information about substrate feature recognition by each transporter and the role of vesicular monoamine storage in the mechanism of action of psychopharmacologic and neurotoxic agents in human. Serotonin has a similar affinity for both transporters. Catecholamines exhibit a 3-fold higher affinity, and histamine exhibits a 30-fold higher affinity, for VMAT2. Reserpine and ketanserin are slightly more potent inhibitors of VMAT2-mediated transport than of VMAT1-mediated transport, whereas tetrabenazine binds to and inhibits only VMAT2. N-methyl-4-phenylpyridinium, phenylethylamine, amphetamine, and methylenedioxymethamphetamine are all more potent inhibitors of VMAT2 than of VMAT1, whereas fenfluramine is a more potent inhibitor of VMAT1-mediated monamine transport than of VMAT2-mediated monoamine transport. The unique distributions of hVMAT1 and hVMAT2 provide new markers for multiple neuroendocrine lineages, and examination of their transport properties provides mechanistic insights into the pharmacology and physiology of amine storage in cardiovascular, endocrine, and central nervous system function.

CC Cytology - Human 02508  
 Biochemistry studies - General 10060  
 Biochemistry studies - Nucleic acids, purines and pyrimidines 10062  
 Biochemistry studies - Proteins, peptides and amino acids 10064  
 Biophysics - Molecular properties and macromolecules 10506  
 Biophysics - Membrane phenomena 10508  
 Movement 12100  
 Metabolism - Proteins, peptides and amino acids 13012  
 Digestive system - Physiology and biochemistry 14004  
 Endocrine - General 17002  
 Endocrine - Adrenals 17004  
 Endocrine - Neuroendocrinology 17020  
 Nervous system - Physiology and biochemistry 20504  
 Pharmacology - Neuropharmacology 22024  
 Toxicology - General and methods 22501

IT Major Concepts  
 Biochemistry and Molecular Biophysics; Cell Biology; Digestive System (Ingestion and Assimilation); Endocrine System (Chemical Coordination and Homeostasis); Membranes (Cell Biology); Metabolism; Nervous System (Neural Coordination); Pharmacology; Toxicology

IT Chemicals & Biochemicals  
 RESERPINE; KETANSERIN; TETRABENAZINE; N-METHYL-4-PHENYLPYRIDINIUM; PHENYLETHYLAMINE; AMPHETAMINE; METHYLENEDIOXYMETHAMPHETAMINE; FENFLURAMINE; SEROTONIN; HISTAMINE

IT Miscellaneous Descriptors  
 ADRENAL MEDULLA; AMINE STORAGE; AMPHETAMINE; BINDING AFFINITY; CATECHOLAMINE; CENTRAL NEURON; CHROMAFFIN CELL; ENTERIC NEURON;



ENTEROCHROMAFFIN CELL; FENFLURAMINE; HISTAMINE; INHIBITION; KETANSERIN;  
 METHYLENEDIOXYMETHAMPHETAMINE; N-METHYL-4-PHENYLPYRIDINIUM;  
 NEUROTOXICITY; OXYNTIC MUCOSA; PERIPHERAL NEURON; PHENYLETHYLAMINE;  
 RESERPINE; SEROTONIN; STOMACH; TETRABENAZINE

## ORGN Classifier

Hominidae 86215

## Super Taxa

Primates; Mammalia; Vertebrata; Chordata; Animalia

## Organism Name

Hominidae

## Taxa Notes

Animals, Chordates, Humans, Mammals, Primates, Vertebrates

RN 50-55-5 (RESERPINE)  
 74050-98-9 (KETANSERIN)  
 58-46-8 (TETRABENAZINE)  
 48134-75-4 (N-METHYL-4-PHENYLPYRIDINIUM)  
 300-62-9 (AMPHETAMINE)  
 42542-10-9 (METHYLENEDIOXYMETHAMPHETAMINE)  
 458-24-2 (FENFLURAMINE)  
 50-67-9 (SEROTONIN)  
 51-45-6 (HISTAMINE)  
 64-04-0 (PHENYLETHYLAMINE)  
 54946-52-0 (METHYLENEDIOXYMETHAMPHETAMINE)

L39 ANSWER 48 OF 51 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
 AN 1994:177769 BIOSIS  
 DN PREV199497190769  
 TI TGF and TGF-beta-3 immunoreactivity within the ciliary epithelium.  
 AU Peress, Nancy S. [Reprint author]; Perillo, Edward  
 CS Dep. Pathol., State Univ. New York Stony Brook, BHS Tower 9, Stony Brook,  
 NY 11794-8691, USA  
 SO Investigative Ophthalmology and Visual Science, (1994) Vol. 35, No. 2, pp.  
 453-457.  
 CODEN: IOVSDA. ISSN: 0146-0404.  
 DT Article  
 LA English  
 ED Entered STN: 26 Apr 1994  
 Last Updated on STN: 26 Apr 1994  
 AB Purpose. To determine whether the ciliary epithelium exhibits  
 immunoreactivity for antibodies to transforming growth factor beta  
 (TGF-beta) 2 and TGF-beta-3. The hypothesis was that because the aqueous  
 humor contains mainly biologically active TGF-beta-2, with little  
 TGF-beta-1, the epithelium largely responsible for its composition would  
 also contain this isoform of TGF-beta. The authors anticipated TGF-beta-3  
 immunoreactivity because TGF-beta-3 often co-localizes with TGF-beta-2.  
 Methods. The authors followed a standard immunohistochemical protocol  
 using the avidin-biotin complex and newly available rabbit antibodies to  
 synthetic peptide sequences of TGF-beta-2 and TGF-beta-3. Formalin-fixed,  
 paraffin-embedded samples of freshly obtained rabbit and human autopsy  
 eyes were studied. Specificity was supported by specific peptide  
 absorption of antisera before tissue incubation. Results. The pigmented  
 and nonpigmented ciliary epithelia of rabbit and human eyes were  
 stained by antibodies to both TGF-beta-2 and TGF-beta-3, and the  
 staining was inhibited by preabsorption of antibodies by peptides of  
 TGF-beta-2 and TGF-beta-3. Conclusions. The authors conclude that the  
 ciliary epithelium exhibits TGF-beta-2- and TGF-beta-3-like  
 immunoreactivity that, based upon complementary work from other  
 laboratories, is probably synthesized by this epithelium and is not simply  
 absorbed by it from the aqueous humor.

CC Microscopy - Histology and histochemistry 01056  
 Cytology - Animal 02506  
 Cytology - Human 02508  
 Genetics - Animal 03506  
 Biochemistry methods - Proteins, peptides and amino acids 10054  
 Biochemistry methods - Carbohydrates 10058  
 Biochemistry studies - Proteins, peptides and amino acids 10064  
 Biochemistry studies - Carbohydrates 10068  
 Biophysics - Molecular properties and macromolecules 10506  
 Biophysics - Membrane phenomena 10508  
 Endocrine - General 17002  
 Sense organs - Anatomy 20002  
 Sense organs - Physiology and biochemistry 20004  
 Immunology - General and methods 34502

IT Major Concepts  
 Biochemistry and Molecular Biophysics; Cell Biology; Endocrine System  
 (Chemical Coordination and Homeostasis); Genetics; Immune System  
 (Chemical Coordination and Homeostasis); Membranes (Cell Biology);  
 Sense Organs (Sensory Reception)

IT Miscellaneous Descriptors  
 OCULAR CYTOKINES; TRANSFORMING GROWTH FACTOR-BETA; TRANSFORMING GROWTH  
 FACTOR-BETA-3

ORGN Classifier  
 Hominidae 86215  
 Super Taxa  
 Primates; Mammalia; Vertebrata; Chordata; Animalia  
 Organism Name  
 human  
 Taxa Notes  
 Animals, Chordates, Humans, Mammals, Primates, Vertebrates

ORGN Classifier  
 Leporidae 86040  
 Super Taxa  
 Lagomorpha; Mammalia; Vertebrata; Chordata; Animalia  
 Organism Name  
 rabbit  
 Taxa Notes  
 Animals, Chordates, Lagomorphs, Mammals, Nonhuman Vertebrates, Nonhuman  
 Mammals, Vertebrates

L39 ANSWER 49 OF 51 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
 AN 1991:272222 BIOSIS  
 DN PREV199192004837; BA92:4837  
 TI ESTABLISHMENT CHARACTERIZATION AND APPLICATION OF MONOCLONAL  
**ANTIBODIES** AGAINST EEL VIRUS EUROPEAN **EVE**.  
 AU CHI S-C [Reprint author]; CHEN S-N; KOU G-H  
 CS DEP ZOOL, NATL TAIWAN UNIV, TAIPEI, TAIWAN  
 SO Fish Pathology, (1991) Vol. 26, No. 1, pp. 1-8.  
 CODEN: GYKEDT. ISSN: 0388-788X.  
 DT Article  
 FS BA  
 LA ENGLISH  
 ED Entered STN: 13 Jun 1991  
 Last Updated on STN: 13 Jun 1991

AB A panel of six monoclonal **antibodies** (MAbs) against eel virus  
 European (**EVE**) isolated from eel (*Anguilla japonica*) with  
 branchionephritis was established in the present study. These systems  
 have been applied for a rapid identification and presumptive serotyping of  
 aquatic biravirus isolates using western immunoblot assay. Amongst these

six MABs, four were demonstrated to be able to react with viral  $\gamma$ -polypeptide, whereas the other two were specific to viral  $\beta$ -polypeptide. Three MABs identified epitopes that were highly conserved among members of AB serotype. One MAB recognized an epitope present on AB and SP serotype strains. Two MABs exhibit the common epitopes observed on AB, SP and VR299 serotypes of infectious pancreatic necrosis virus (IPNV). One of these two MABs could react with all aquatic birnavirus isolates from various areas including Asia, North America and Europe. Six isolates from Asia exhibiting five varying reaction patterns were demonstrated to be distinct from AB, SP and VR299 serotypes.

CC Cytology - Animal 02506

Ecology: environmental biology - Wildlife management: aquatic 07516

Biochemistry studies - Proteins, peptides and amino acids 10064

Biochemistry studies - Carbohydrates 10068

Biophysics - Methods and techniques 10504

Pathology - Inflammation and inflammatory disease 12508

Urinary system - Pathology 15506

Respiratory system - Pathology 16006

Virology - Animal host viruses 33506

Immunology - General and methods 34502

Immunology - Bacterial, viral and fungal 34504

Medical and clinical microbiology - Virology 36006

Medical and clinical microbiology - Serodiagnosis 36504

Chordata: general and systematic - Pisces 62510

IT Major Concepts

Cell Biology; Immune System (Chemical Coordination and Homeostasis); Infection; Microbiology; Pathology; Respiratory System (Respiration); Serology (Allied Medical Sciences); Systematics and Taxonomy; Urinary System (Chemical Coordination and Homeostasis); Wildlife Management (Conservation)

IT Miscellaneous Descriptors

ANGUILLA-JAPONICA BIRNAVIRUS VIRAL POLYPEPTIDE BRANCHIONEPHRITIS

SEROTYPING WESTERN IMMUNOBLOT ASSAY FISHERY SIGNIFICANCE

ORGN Classifier

Rhabdoviridae 03504

Super Taxa

Negative Sense ssRNA Viruses; Viruses; Microorganisms

Taxa Notes

Microorganisms, Negative Sense Single-Stranded RNA Viruses, Viruses

ORGN Classifier

Osteichthyes 85206

Super Taxa

Pisces; Vertebrata; Chordata; Animalia

Taxa Notes

Animals, Chordates, Fish, Nonhuman Vertebrates, Vertebrates

L39 ANSWER (50) OF 51 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 2004-368544 [37] WPIX

CR 2003-723361 [69]

DNN N2004-317703 DNC C2004-149133

TI Novel amphetamine derivative compounds, useful as immunogens for producing antibodies specific for ecstasy-class of drugs, e.g. 3,4-methylenedioxy-N-ethylamphetamine.

DC B04 B05 D16 S03

IN BABURINA, I; HUI, R-A; JORDAN, S; ROOT, R T; VITONE, S

PA (HOFF) ROCHE DIAGNOSTICS CORP

CYC 1

PI US 2004077021 A1 20040422 (200437)\* 23

ADT US 2004077021 A1 CIP of US 2002-87612 20020301, US 2003-622524 20030718

PRAI US 2003-622524 20030718; US 2002-87612 20020301  
AB US2004077021 A UPAB: 20040611

NOVELTY - An amphetamine derivative compound (C1) of formula (I), is new.  
DETAILED DESCRIPTION - An amphetamine derivative compound (C1) of formula (I).

R1 = an alkyl group comprising 2-6 carbon atoms;  
R2 = hydrogen, alkyl groups, or protecting groups;  
R3 = optionally substituted alkyl group;  
Z = L-X-Q;  
L = a group comprising 1-15 carbon atoms and 0-6 heteroatoms;  
X = O, CO, NR<sub>4</sub>, S, C(=NH)O, NH(CO), NH(CO)NH, NH(CS), NH(CS)NH,  
O(CO)NH, NH(C=NH), or maleimidothioether;  
R4 = hydrogen or alkyl groups; and  
Q = hydrogen, hydroxyl, leaving groups, macromolecular carriers, or labels.

INDEPENDENT CLAIMS are also included for:

(1) an antibody (Ab1) that preferentially binds 3,4-methylenedioxy-N-ethylamphetamine (MDEA) relative to other members of the ecstasy-class of drugs, where the antibody is a monoclonal antibody produced from a cell line NEAMP 48.2, ATCC designation PTA-5295, or is a monoclonal antibody produced from a cell line Cell line NEAMP 62.1, ATCC designation PTA-5294;

(2) cell line NEAMP 48.2, ATCC designation PTA-5295, producing a monoclonal **antibody** preferentially binding to **MDEA**;

(3) a monoclonal **antibody** that binds preferentially to **MDEA** in a manner equivalent to that of an antibody from cell line NEAMP 48.2, ATCC designation PTA-5295;

(4) cell line NEAMP 62.1, ATCC designation PTA-5294, producing a monoclonal **antibody** that preferentially binds to **MDEA**;

(5) a monoclonal **antibody** that binds preferentially to **MDEA** in a manner equivalent to that of an antibody from a cell line NEAMP 62.1, ATCC designation PTA-5294;

(6) an antibody generated in response to (C1); and

(7) a reagent kit comprising Ab1.

USE - (C1) is useful for producing an antibody specific for the amphetamine derivative which involves inoculating a host with an immunogen comprising (C1). Ab1 is useful for detecting an analyte in a sample, which involves contacting the sample with the antibody, binding the antibody to the analyte, and detecting a complex formed by the antibody and the analyte. The analyte is chosen from an amphetamine, an amphetamine derivative, an ecstasy-class drug (preferably MDEA), an ecstasy-class drug derivative or their derivatives (claimed).

ADVANTAGE - Antibodies produced in response to (C1), show particularly high recognition for the ecstasy-class drug MDEA, which is generally poorly detected by conventional amphetamine and methamphetamine immunoassays. The antibody thus produced can be used as a booster antibody to increase detection in an existing amphetamine or methamphetamine assay or as a separate **antibody** for **MDEA** in immunoassays for MD-class drugs.

Dwg. 0/6

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AN 2003-723361 [69] WPIX

CR 2004-398544 [37]

DNN N2003-578376 DNC C2003-199236

TI New methylenedioxy class of amphetamine derivatives useful as immunogen in the production of an antibody specific for ecstasy drugs.

DC B02 B04 D16 S03

IN HUI, R A; ROOT, R T; VITONE, S S

PA (HOFF) HOFFMANN LA ROCHE & CO AG F; (HOFF) ROCHE DIAGNOSTICS GMBH; (HOFF)

## ROCHE DIAGNOSTICS CORP

CYC 34

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20030224; US-2003170917 A1 US 2002-87612 20020301; JP 2004123692 A JP

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AB EP 1340980 A UPAB: 20040611

NOVELTY - Methylenedioxy class of amphetamine derivatives are new.

DETAILED DESCRIPTION - Methylenedioxy class of amphetamine derivatives of formula (I) are new.

R1 = 2-6C alkyl;

R2 = H, alkyl or a protecting group;

R3 = optionally substituted alkyl;

Z' = -L-X-Q;

L = 1-15C atoms and 0-6 heteroatoms;

X = -O-, -CO-, -NR4-, -S-, -C(=NH)O-, -NH(CO)-, -NH(CO)NH-, -NH(CS)-, NH(CS)NH-, -O(CO)NH-, -NH(C=NH)- or maleimidothioether;

R4 = H or alkyl; and

Q = H, hydroxyl, leaving group, macromolecular carrier or a label.

INDEPENDENT CLAIMS are included for the following:

(1) an antibody specific for 3,4-methylenedioxy-N-ethylamphetamine (MDEA) or an analyte (A) comprising (I);

(2) a reagent kit comprising the antibody;

(3) production of an antibody comprising inoculating a host with an immunogen containing (I);

(4) detection of (A) in a sample comprising:

(i) contacting the sample with the antibody;

(ii) binding the antibody to the analyte; and

(iii) detecting an adduct formed.

USE - As an immunogen in the production of an antibody specific for ecstasy drugs. The antibody produced can be used either as a booster antibody to increase detection in an existing amphetamine or methamphetamine assay or as a separate **antibody** for **MDEA** in immunoassay for MD-class drugs.

ADVANTAGE - (I) when used in immunoassays are relatively sensitive to and specific for ecstasy drugs. Antibodies produced from (I) show particularly high recognition for the ecstasy drug MDEA, which is generally poorly detected by conventional immunoassays.

Dwg.0/8

*this applies*

